

Appendix B

OU 3-14 FS Cost Estimates

Idaho Cleanup Project

CH2M+WG IDAHO, LLC

INTEROFFICE MEMORANDUM

Date: April 21, 2006

To: L. S. Cahn MS 3921 6-1603

From: J. D. Folker MS 3655 6-0322

Subject: OPERATING UNIT 3-14 TANK FARM SOILS AND GROUNDWATER
FEASIBILITY STUDY-ALTERNATIVES 1, 2a, 2b, 3a, 3b, 4a, 4b, 5

Per your request, Estimating Services has prepared a Project Support Cost Estimate for the above referenced project.

The cost for each alternative (with contingency) is as follows:

Alternative Number	Costs in 2006 Dollars	Costs in Escalated Dollars	Costs in Net Present Dollars
1	\$15,882,710	\$58,157,100	\$3,293,760
2a	\$36,740,090	\$110,309,171	\$12,228,616
2b	\$35,619,413	\$112,551,166	\$9,038,276
3a	\$84,728,122	\$177,154,037	\$43,100,933
3b	\$83,563,560	\$202,500,915	\$27,547,856
4a	\$42,757,160	\$118,690,641	\$16,099,600
4b	\$41,547,113	\$124,277,598	\$11,329,113
5	\$33,950,294	\$199,193,462	\$1,417,816

Please note:

1. This project has been identified as a CWI owned and funded project.
2. No services will be purchased from BEA.
3. For contingency, please refer to the Cost Estimate Summary Sheet.
4. G&A has not been included in the analysis.

Please refer to the attached Cost Estimate Summary Sheet, Cost Estimate Level Summary Sheet, Cost Estimate Support Data Recapitulation, Summary Report, Project Summary Report, and Detail Item Report. Please note that the Detail Alternative Estimate Sheets have been sent to you electronically.

This estimate is based on the draft feasibility study and information from you as to the scope of work to be completed. Any changes to the methodology used to prepare this could have a significant effect on the cost estimate and/or schedule and should be reviewed by Estimating Services. If you have questions or comments, please call me at 6-0322, or email *folkjd*.

jdf

Attachments

cc: H. S. Forsythe, MS 3419
Estimate File 2966-M
Letter File (JDF-04-06)

Uniform File Code: 8000

Disposition Authority: A16-1.5-b

Retention Schedule: Cut off at the end of each fiscal year. Destroy 15 years after cutoff.

NOTE: Original disposition authority, retention schedule, and Uniform Filing Code applied by the sender may not be appropriate for all recipients. Make adjustments as needed.

CH2M•WG IDAHO, LLC

COST ESTIMATE SUPPORT DATA RECAPITULATION

Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1
Estimator: J. D. FOLKER
Date: APRIL 21, 2006
Estimate Type: PROJECT SUPPORT
File: 2966-M

Approved By:

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I. **PURPOSE:** *Brief description of the intent of how the estimate is to be used, i.e., for engineering study, comparative analysis, DWP, LCB out-year planning, BCP, etc.*

This estimate will provide comparative cost estimates which will be included in the Operable Unit (OU) 3-14 Tank Farm Soil and Groundwater Feasibility Study (FS). This estimate is a revision to the previous estimate file number 2966-I, which included two contingent pump and treat options (contain plume and cleanup plume). One contingent pump and treat option (cleanup plume) has been evaluated in this revision.

II. **SCOPE OF WORK:** *Brief statement of the project's objective. Thorough overview and description of the proposed project. Identify work to be accomplished, as well as any specific work to be excluded.*

The OU 3-14 Tank Farm Soil and Groundwater project has conducted a feasibility study to support risk management and remediation decisions about OU 3-14 tank farm soil site contamination within or near the INTEC tank farm fence line and contaminated groundwater in the Snake River Plain Aquifer (SRPA) resulting from INTEC operations. The tank farm remediation will be coordinated with the tank farm HWMA/RCRA tank closure actions, which will be completed by 2012.

This OU 3-14 Tank Farm Soil and Groundwater project will also implement the remedial action consisting of the necessary remedies to:

- A. Protect future workers from external exposure to the upper 4 ft of contaminated soil in the tank farm.
- B. Protect future residents from external exposure to the upper 10 ft of soil in sites CPP-15 and CPP-58E outside of the tank farm in accordance with the OU 3-13 Record of Decision.
- C. Prevent migration of contaminants in the alluvium to the SRPA in concentrations that will exceed MCLs in 2095 and beyond or implement appropriate institutional controls.

The following alternatives were considered for the remediation of the INTEC Tank Farm:

- Alternative 1: Limited action.
- Alternative 2a: Institutional controls, monitoring and containment (majority of E/T cap in 2012).

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1

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- Alternative 2b: Institutional controls, monitoring and containment (majority of E/T cap in 2035).
- Alternative 3a: Institutional controls, monitoring, source removal and containment (majority of E/T cap in 2012, source removal in 2012).
- Alternative 3b: Institutional controls, monitoring, source removal and containment (majority of E/T cap in 2035, majority of source removal in 2035).
- Alternative 4a: Institutional controls, monitoring, source treatment and containment (majority of E/T cap in 2012, source treatment in 2012).
- Alternative 4b: Institutional controls, monitoring, source treatment and containment (majority of E/T cap in 2035, source treatment in 2035).
- Alternative 5: Snake River Plain Aquifer pump and treat (start 2070) and operations and maintenance.

III. **BASIS OF THE ESTIMATE:** *Overall methodology and rationale of how the estimate was developed. Source documents to include drawings, design reports, engineers' notes and/or other documentation upon which the estimate is originated. Overall explanation of sources for resource pricing.*

- A. Applicable draft sections and preliminary outlines of the FS document.
- B. Coordination and status meetings with the project team.
- C. *RS Means Facilities Construction Cost Data, 20th Edition, 2005* (productivity rates adjusted down to reflect INL productivity).
- D. *Richardson Process Plant Construction Estimating Standards*.
- E. Rental Rate Blue Book for Construction Equipment.
- F. Estimate File Number 2966-D, OU 3-14 RI/FS Tank Farm Soils Remediation.
- G. The productivity rates for support services were obtained from the Support Services Staffing Primer, email from Ed May dated July 14, 2003, and conversations with Mike Ingram and Carolyn Parke.
- H. For specific cost basis, see detailed cost estimate sheets.
- I. Detailed Work Plan May 1, 2005, through September 30, 2005, Team Stoller-INL CERCLA Disposal Facility, transportation unit costs.
- J. Estimated dirt quantities are from Feasibility Study-OU-3-14 sketches for alternatives 2, 3, and 4.
- K. *RS Means Environmental Remediation Cost Data*, (productivity rates adjusted down to reflect INL productivity).
- L. For CPP-31, hot removal, refer to Estimate File Number 5989-D, WAG 7 for procurement, construction of retrieval structure, retrieval, and D&D of retrieval structure.
- M. Pump and treat subcontract building square foot costs are based on replacement value for a pre-engineered metal building at the INL. See Estimate
- N. File Number 8773-B, 8773-H for subcontract unit cost. Construction subcontract for the building includes: general conditions, site work, concrete, masonry, finishes, special construction, mechanical (including HVAC with HEPA filtration), and electrical.
- O. Samuel C. Ashworth to Lorie Cahn email dated February 2, 2006, in which two wells at 550 gallons per minute (GPM) are specified for the cleanup plume option.

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1
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- P. Samuel C. Ashworth to Lorie Cahn email dated February 2, 2006, in which it is stated that the only contaminant of concern (COC) is Sr-90.
- Q. See Estimate File Number 2966-K for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittal of reports to agencies. For basis, (Total cost per year is \$526,000/7 yrs [FY06-12]) = \$75,000 annual cost.
- R. Environmental Protection Agency (EPA) Number 540-R-00-002, July 2000 Guidelines for FS.
- S. Wastes that may be generated after ICDF closure include spent ion exchange resins and potentially other bulk LLW solids including soil. Current contract disposal price at Energy Solutions (formerly Envirocare of Utah) for LLW soils is \$6.56/ft³ (\$177/cy) not including transportation. This compares to a current cost of \$28/cy for transportation and ICDF disposal of INL LLW soil.

IV. **ASSUMPTIONS:** *Condition statements accepted or supposed true without proof of demonstration; statements adding clarification to scope. An assumption has a direct impact on total estimated cost.*

- A. This is a CWI owned project.
- B. All services will be provided by CWI except subcontract construction and Team Stoller.
- C. The construction subcontract(s) will be awarded through the normal competitive bid process.
- D. INTEC Remote Analytical Laboratory (RAL) will be responsible for all capital monitoring, sampling, and analysis costs.
- E. Construction will follow normal DOE Architectural Engineering Standards.
- F. The remaining high level waste tanks (WM-187, 188, 189, and 190) will be clean closed and grouted by the end of FY 2011.
- G. RCRA clean closure of the tank farm will include all tank farm tanks and active and abandoned piping.
- H. CERCLA soil and debris will not be considered HLW and can be left in place.
- I. DD&D (others) will be responsible for removal of all tank farm buildings, and this work will be complete prior to the start of environmental remediation.
- J. All capital work will be completed in FY 2012. All O&M and periodic work will commence in FY 2013 and continue until 2095.
- K. For contingent pump and treat, costs for the following option has been included: Cleanup plume (550 GPM).
- L. Institutional controls from 2013 to 2095 include costs for minimal passive activities and operational effort.
- M. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc.
- N. Five year reviews to establish guideline, review remedy, write report, review report, publish report will commence in 2013.
- O. Caretaker responsibilities will include visual inspection of physical security provision, well inspections, and grounds general maintenance and upkeep.

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1

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- P. Institutional controls (IC) annual report will include ORB review, incorporation of agency comments, revision of IC plan, preparation of IC plan, graphic support, technical editing, document control, and final ORB review.
- Q. The capital project will fund full time security support.

- R. The unit cost for one 600 foot deep well is calculated as follows: The well will be drilled at a subcontract drilling unit cost of \$337/LF, based on Group 4 drilling costs from CAPS for 16 Phase I wells at INTEC in clean area in FY 01 for 5,676 LF and a total subcontract cost of \$1,911,840. $(1,911,840 / 5,676 = \$337/LF)$. It is assumed that the drilling cost is 1.10 times FY 01 historicals for drilling in contaminated areas (\$370/LF). \$370/LF escalated from 2001 to 2006, per Defense and General Construction Escalation Indices, $= 1.1035 \times 370 = \$408/LF$.
- S. For transport of soils, the unit cost from DWP May 1, 2005 through September 30, 2005, Team Stoller-INL CERCLA Disposal Facility, INTEC transportation costs, was used. 1.73 tons/CY is the negotiated factor.
- T. Excavation productivity rates for the contact and non-contact areas are included and explained in the notes in the detailed estimate sheets.
- U. The OU 3-14 RI/BRA indicated that there was no risk from the RCRA constituents in the soil. A RCRA cap, post closure permit, or RCRA groundwater monitoring program is therefore not required.
- W. Sites CPP-15 and CPP-58 pose an unacceptable risk from direct exposure to Cs-137 to the current worker (assuming a worker would work 40 hours a day, 50 weeks per year for 25 years on top of one of these sites). The Cs-137 will decay to acceptable levels prior to the end of the institutional control period in 2095 and therefore the sites do not pose an unacceptable risk to future workers. Institutional control until the concentrations decay to acceptable levels is the only remedy that was evaluated in the FS for these two sites.
- X. Beech Street will be closed because the ET cover will extend half way across the street.
- Y. Beech Street utility tunnel personnel and maintenance access hatches will be covered by the ET cover.
- Z. The Beech Street surface drainage ditch that runs along the western edge of the tank farm will be replaced with a culvert and buried under the ET cover.
- AA. The WM-191 vault will need a 10-feet high retaining wall to support the ET cover that extends beyond the tank.
- BB. The ET cover extends into CPP-654. Therefore, the building will need to be removed.
- CC. The ET cover extends into CPP-699. Therefore, the building will need to be removed.
- DD. CPP-659 will need a 20-foot high retaining wall to support the ET cover next to the building.
- EE. The southeast tank farm drainage ditch will be replaced with a culvert and buried under the ET cover.
- FF. Six valve boxes need to be extended 10-feet in order to allow access to valves on an active transfer line.
- GG. All structures on the south side of the tank farm will be removed prior to 2035.

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1

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- HH. Grading fill material for the central zone and south perimeter areas is available within one mile of the job site.
- II. Gravel and cobble stone for the ET caps are available from Idaho Falls and will be delivered to a stock pile ½ mile from the job site.

- JJ. Drainage ditches and culverts will be installed along the perimeter of the cap.
- KK. For the alternatives in which the ET caps are installed in 2012, CPP-654 and CPP-699 will be D&D'd. For the alternatives in which the ET caps are installed in 2035, CPP-654 and CPP-699 will be D&D'd by others.
- LL. For the alternatives in which the ET caps are installed in 2012, CPP-659 will require retaining walls since it is in the area of the ET cap.
For the alternatives in which the ET caps are installed in 2035, CPP-659 will not require retaining walls since it will be D&D'd prior to 2035.
- MM. It is assumed that the INL will maintain security personnel required for construction activities.
- NN. For cost spread, in alternatives 2a, 3a, 4a, it was assumed that 75% of the capital costs will be incurred in 2012 and 25% of the capital costs will be incurred in 2035. For alternatives 2b, 3b, 4b, it was assumed that 25% of the capital costs will be incurred in 2012 and 75% of the capital costs will be incurred in 2035.

V. **CONTINGENCY GUIDELINE IMPLEMENTATION:** *Explanation of methodology used in determining overall contingency. Identify any specific drivers or items of concern.*

A. **Contingency Costs:**

- 1. EPA guidance distinguishes between scope contingency and bid contingency costs. Scope contingency costs represent risks associated with incomplete design and include contributing factors such as limited experience with technologies, additional requirements because of regulatory or policy changes, and inaccuracies in defining quantities or characteristics. Exhibit 5-6 of the EPA guidance provides examples of scope contingencies. Bid contingency costs are unknown costs at the time of estimate preparation that become known as remedial action construction proceeds. Bid contingencies represent reserves for quantity overruns, modifications, change orders, and claims during construction. The EPA guidance states that bid contingencies should be added to construction costs and typically range from 10 to 20%.
- 2. Considering the cost contingency guidance in the EPA guidance Exhibit 5-6 for each of the alternatives, a representative contingency was selected within the range provided based on the complexity and size of the project and the inherent uncertainties related to the remedial technologies.
- 3. The scope and bid contingency percentages associated with the modules within the alternatives are identified in Table 3. These percentages are applied to individual modules in each alternative cost estimate to establish representative cost contingencies.

COST ESTIMATE SUPPORT DATA RECAPITULATION

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B. EPA guidance:

The EPA guidance document does not address all remedial technologies identified in this module. Specifically, scope contingency for contaminant grouting would be within a cost contingency range of 10 to 30% and are considered representative for this work and project scope.

C. Scope and bid contingencies:

Scope and bid contingencies are based on percentages of the total capital costs as directed within Section 5.4 of the 2000 EPA guidance. The greatest areas of risk to this project are as follows:

A. Scope Risk:

Large risk associated with change in surface area (additional area = large increase in injections or excavations) and use of modified equipment (track hoe fit with injection lance). Engineering risk associated with the grout/waste compatibility.

B. Bid Risks:

Risk during acceptance testing that the chosen grout will not meet acceptance criteria and additional testing would be required. Contamination risk in grout returns and in remote excavation and during drill string handling (drill string injected into and withdrawn from waste zone).

VI. ESTIMATE SUMMARY: *Total dollars/hours and Rough Order Magnitude (ROM) allocations of the methodologies used to develop the cost estimate.*

The following percentages are representative of all of the alternatives:

Estimate Methodology	ROM Percentage %
Project Team	65
Recorded Actuals	3
Parametric	25
Vendor Quotes	2
Other (RS Means)	5
TOTAL	100

/II. OTHER COMMENTS/CONCERNS SPECIFIC TO THE ESTIMATE:

A. Summary costs have been prepared for comparative analysis and are presented in:

- Current year 2006 dollars.
- Escalated dollars per DOE published rates.
- Present net worth dollars discounted at a rate as recommended by the EPA under CERCLA guidance.

COST ESTIMATE SUPPORT DATA RECAPITULATION

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Project Title: OU 3-14 FEASIBILITY STUDY REVISION 1

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- B. The revised estimates were performed in conjunction with the changes made to the pump and treat alternatives and the ET cap alternatives.
- C. Costs were generated and coordinated among cognizant engineers, technical personnel, and the performing cost estimator.

Summary Report

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action
 Project Location: **INTEC Tank Farm**
 Project Number: **2806-M-1**

ESTIMATE ELEMENT	Estimate Subtotal	Escalation <i>0.00%</i>	Contingency <i>15.00%</i>	TOTAL
Total Estimated Cost (TEC)	\$301,729		\$45,259	\$346,989
Total Cost	\$301,729	0.00%	\$45,259	\$346,989

Rounded Total Cost (Rounded to the nearest \$ 1000)

Type of Estimate:	Project Support	Remarks
Estimator:	J.D. Folker, S-0322	
Checked By:		
Approved By:		

Project Summary Report

Project Name: **WAG³
OU 3-14 RI/FS Alternative 1: Limited Action**

Project Location: **INTEC Tank Farm**

Estimate Number: **2966-M-1**

Client: **L. Cain, 6-3080**
 Prepared By: **J. D. Palker, 6-0322**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		Operational and Maintenance (O&M) Costs	\$234,667		\$35,200	15.00%	\$269,867
		-O&M Activities	\$63,882	\$0	\$12,582	15.00%	\$96,465
		---Extraction, Containment, or Treatment Systems	\$75,000	\$0	\$11,250	15.00%	\$86,250
		—Project Management (O&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		-Surveillance and Monitoring (S&M)	\$136,612	\$0	\$20,492	15.00%	\$157,104
		—Project Management (S&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		---Monitoring, Sampling, Testing, and Analysis (S&M) (2013,15,20,25,...95)	\$127,730	\$0	\$19,169	15.00%	\$146,889
		-Institutional Controls (IC)	\$14,172	\$0	\$2,126	15.00%	\$16,298
		---Site Information Database (CFLUP) (Annual)	\$2,972	\$0	\$446	15.00%	\$3,418
		—Annual Institutional Control Inspection	\$2,318	\$0	\$348	15.00%	\$2,865
		—Project Management (IC) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		Periodic Costs	\$67,062	\$0	\$10,059	15.00%	\$77,122
		-Construction/O&M Activities (Periodic)	\$3,555	\$0	\$533	15.00%	\$4,088
		—Remedy Failure or Replacement (Annual)	\$3,555	\$0	\$633	15.00%	\$4,088
		-Professional/Technical Services (Periodic)	\$45,077	\$0	\$6,762	15.00%	\$51,839
		---Five Year Reviews	\$45,077	\$0	\$6,762	15.00%	\$51,839
		-Update Institutional Controls Plan (Annual)	\$18,430	\$0	\$2,764	15.00%	\$21,194
		Total OU 3-14 FS ALTERNATIVE 1: LIMITED ACTION	\$301,729	\$0	\$45,259	15.00%	\$346,989

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action

Project Location: **INTEC Tank Farm**

Estimate Number: **2886-M-1**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. D. Fulkier, 6-0322**
 Estimate Type: **Project Support**

Extraction, Containment, or Treatment Systems

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Memo: Costs for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittal of reports to agencies. For basis, see estimate file # 2886-K. (Total cost per year is \$228,000/7 yrs (FY06-12)) = \$75,000 annual cost.												
Surface Water Controls												
	CWI		U.C. per LS	1.00	LS	0	\$0	0	\$0	0	\$0	\$75,000
Subtotal							\$0	\$0	\$0	\$0	\$0	\$75,000
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$0	\$0	\$75,000
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$0	\$0	\$11,250
Total Extraction, Containment, or Treatment Systems							0	\$0	\$0	\$0	\$0	\$86,250

Project Management (O&M) (Annual)

Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource loading, etc. 10 hrs/month. Based on current/proposed crew makeup and determined duration periods.

E28	PROJECT MANAGEMENT	CWI	U.C. per hrs	10.00	hrs	12 E28	\$74.02 \$8,882	0 \$0	\$0	0 \$0	\$0	\$868.24 \$8,882
Subtotal							\$8,882	\$0	\$0	\$0	\$0	\$8,882
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$0	\$0	\$8,882
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$1,332	\$0	\$0	\$0	\$0	\$1,332
Total Project Management (O&M) (Annual)							120	\$10,216	\$0	\$0	\$0	\$10,216

Project Management (S&M) (Annual)

Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource loading, etc. Based on current/proposed crew makeup and determined duration periods.

DETAIL ITEM REPORT

Project Name: WAG 3
Project Location: OU-14 RI/FS Alternative 1: Limited Action
Estimate Number: 2986-M-1

<u>Description</u>		<u>Code</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
E-28 PROJECT MANAGEMENT		CWI		U.C. per months	12.00	months	10 E28	\$74.02	740.2	0	0	0	\$740.2
CWI								\$8,882	\$0	\$0	\$0	\$0	\$8,882
Subtotal								\$0	\$0	\$0	\$0	\$0	\$0
Sales Tax								\$0	\$0	\$0	\$0	\$0	\$0
Overheads								\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate													\$5,882
Escalation								\$0	\$0	\$0	\$0	\$0	\$0
Contingency								\$1,332	\$0	\$0	\$0	\$0	\$1,332
Total Project Management (S&M) (Annual)													\$10,215
120								\$10,215					

Monitoring, Sampling, Testing, and Analysis (S&M) (2013, 162025...85)

Memorandum: Includes radiation surveys and environmental monitoring for CPP-96. For groundwater monitoring, group 5, estimate fits # 8530-DWTP2-11B and WBS P.4.C1-04.01, Routine GW monitoring LCB assignments are used as basis. AWAR 2013 - 2015 then every 5 years thereafter. The Team L. G. S. Cahn annual monitor requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. G. S. Cahn annual to J. Folier dated 09/12/2005.

Soil Monitoring
Memo: A No Longer Contained In Determination will be approved for all INTEC groundwater and perched water.

4/22/2006

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action
Project Location: **INTEC Tank Farm**
Estimate Number: **29868-M-1**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. D. Fokker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Monitoring, Sampling, Testing, and Analysis (S&A) (2013.15.20.25...96)												
<i>Memo: Includes radiation surveys and environmental monitoring for CPP-96. For groundwater monitoring, group 5, estimate file # 8530-DWP2-11B and WBS P-4.C4.04.01, Routine GW monitoring LCB estimates are used as basis. AWMR 2013. 2015 then every 5 years till 2056. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cahn email to J. Fokker dated 09/12/2005.</i>												
S15	ANALYTICAL CHEMISTRY	CWI	U.C. per ea	1.00	ea	12	\$53.67	644.04	0	0	0	\$0
T10	LABORATORY TECH	CWI	U.C. per ea	1.00	ea	12	\$15	\$644	\$0	\$0	\$0	\$644
T15	ENVIRONMENTAL TECH	CWI	U.C. per ea	1.00	ea	8	\$37.03	296.24	\$0	\$0	\$0	296.24
U16	FITTER	CWI	U.C. per ea	1.00	ea	8	\$110	\$296	\$0	\$0	\$0	\$296
U76	CONSTRUCTION IRON WORKER (FORCE ACCT)	CWI	U.C. per ea	1.00	ea	3	\$36.61	109.83	0	0	0	109.83
U84	CONSTRUCTION LABORER (FORCE ACCT)	CWI	U.C. per ea	1.00	ea	30	\$33.36	1000.8	\$0	\$0	\$0	1000.8
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	30	\$76	\$1,001	\$0	\$0	\$0	\$1,001
	Sample Analysis	CWI	U.C. per LS	NMBQ	0	0	\$0	\$0	0	0	0	0
<i>Memo: Based on Group 5 actuals. See Routine GW monitoring LCB, ID ERN4100046.</i>												
A02	DATA ENTRY	CWI	U.C. per ea	1.00	ea	40	\$19.98	799.2	0	0	0	799.2
	"Data Validation & L&V Report"	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	0	0	\$0
<i>Memo: Based on Group 5 actuals. See Routine GW monitoring LCB, ID ERN4100046.</i>												

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 1: Limited Action**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-1**

Client: **L. Cahn, 6-3980**
 Prepared By: **J. D. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Monitoring, Sampling, Testing, and Analysis (S&M) (2013.15,20,25,...95)												
<i>Memo: LCB estimates are used as basis. AWMR 2013, 2015 then every 5 years till 2095. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cahn email to J. Folker dated 09/12/2006.</i>												
NRPR	RECORDS MANAGEMENT	CWI	U.C. per hrs	9.00	hrs	NRPR	0	\$0	0	38.38	0	0
A25	OFFICE ADMINISTRATION/COORDINATION	CWI	U.C. per ea	1.00	ea	3 A25	\$25.58	\$77	\$0	0	\$0	76.74
S15	ANALYTICAL CHEMISTRY	CWI	U.C. per ea	1.00	ea	35 S15	\$53.67	\$1,878	\$0	0	\$0	1878.45
S16	CHEMICAL SCIENCES	CWI	U.C. per ea	1.00	ea	34 S16	\$65.07	\$2,212	\$0	0	\$0	\$2,212
Subtotal												
	Sales Tax			0.00%				\$0	\$0	\$72.274	\$0	\$127.730
	Overheads							\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
	Escalation							\$0	\$0	\$0	\$0	\$0
	Contingency							\$0	\$0	\$10,841	\$0	\$19,159
-Total Monitoring, Sampling, Testing, and Analysis (S&M) (2013.15,20,25,...95),												
				677		\$80,023	\$0	\$3,761	\$83,118	\$0	\$145,889	

Site Information Database (CFLUP) (Annual)

Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the iNL through 2095. 1 year costs.

X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	50 X12	\$47.41	\$2,370.5	\$0	0	0	2370.5
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	2.00	hrs	0	\$0	\$0	58.69	0	0	58.69

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: WAG 3
OU S-14 RI/FS Alternative 1: Limited Action
Project Location: INTEC Tank Farm
Estimate Number: 2008-M-1

<u>Description</u>	<u>Code</u>	<u>Contractor</u>	<u>City</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Information Database (CFLUP) (Annual)												
<i>Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the INL CFLUP; update changes or terminations agreed to by the agencies. Incorporation of ORB comments. See WRS P-4.C1-03.02, Institutional Controls, estimate by R/Fitch. Once per year through 2035. 1 year costs.</i>												
S05	GEOLOGY	CWI	U.C. per sq	1.00	ea	8	\$60.57	484.56	\$0	0	0	\$485
Subtotal						\$0	\$2,855	\$117	\$0	\$0	\$0	\$2,572
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$2,972
Escalation						\$428	\$0	\$18	\$0	\$0	\$0	\$446
Contingency						\$428	\$0	\$135	\$0	\$0	\$0	\$446
Total Site Information Database (CFLUP) (Annual)				58		\$3,383						\$3,418

Annual Institutional Centres | Inspection

Annual Inspection (Assessment) - See WBS No. P4-C1-03-02, ID # ERM3200010.

DETAIL ITEM REPORT

Project Name: **WAG 3**
Project Location: **INTEC 3-14 RUFFS Alternative 1: Limited Action**
Estimate Number: **2988-M-1**

Project Management (IC) (Annual)		Code Description		Contractor		City		UOM		Hrs		Resource		Labor		Equipment		Material		Subcontractor		Other		TOTAL			
Memo:	Responsible for managing baseline schedule and budget, LCB mode, changes and updates, reporting, resource loading, etc. Based on current/proposed crew makeup and determined duration perfore.																										
E28	PROJECT MANAGEMENT	CW1	U.C. per hrs	10.00	hrs	12	\$74.02	888.24	0	0	\$0	\$0	0	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$888.24	\$8,882	
Subtotal	Sales Tax																									\$8,882	
Overheads	0.00%																									\$0	\$0
Subtotal Estimate																										\$9,882	
Escalation																										\$0	\$0
Contingency																										\$1,332	\$1,332
Total Project Management (IC) (Annual)																										\$10,216	\$10,216

Remote Failure or Replacement (Annual)

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-1**

Client: **L. Cain, 6-3080**
 Prepared By: **J. D. Folker, 6-0322**
 Estimate Type: **Project Support**

Remedy Failure or Replacement (Annual)

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Memo: <i>Warning signs and physical barriers replacement. (Annual costs) See Institutional Controls WES No. P.4.C1.03.02.JD # ERM3200100, "Maintain Institutional Controls" for basis of estimate.</i>												
NM80 OTHER - SERVICES	CWI	U.C. per Lot	NM60	1.00	Lot	0	\$0	0	\$0	0	0	\$0
Subtotal							\$2,715	\$0	\$0	\$800	0	\$800
Sales Tax							\$0	\$0	\$0	\$0	0	\$0
Overheads							\$0	\$0	\$0	\$0	0	\$0
Subtotal Estimate												\$3,555
Escalation												
Contingency												
-- Total Remedy Failure or Replacement (Annual)			80			\$3,168	\$0	\$0	\$920	\$0	\$0	\$4,088

Five Year Review

Memo: <i>Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013,.....</i>												
"Assemble Data"	CWI	U.C. per LS	1.00	LS	0		\$0	0	0	0	0	0
Z09 SUPERVISOR, SC/ENG FUNC	CWI	U.C. per es	1.00	ea	84	209	\$6,109	32	0	0	0	\$6,109
NM60 OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	1.00	LS	0	\$0	0	2398	0	0	2398
"Prepare Draft"	CWI	U.C. per LS	1.00	LS	0		\$0	0	\$2,398	\$0	0	\$2,398
NRPF ELECTRONIC PUBLICATIONS	CWI	U.C. per hrs	NRPF	5.00	hrs	0	\$0	0	36.17	0	0	36.17
NRPG WRITER/EDITOR	CWI	U.C. per hrs	NRPG	28.00	hrs	0	\$0	0	58.69	0	0	58.69
T08 ILLUSTRATOR/ARTIST	CWI	U.C. per es	1.00	ea	4	36.51	\$146.04	4	\$0	\$0	\$0	\$146.04

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action
 Project Location: *INTEC Tank Farm*
 Estimate Number: **2866-M-1**

DETAIL ITEM REPORT

Memo: **Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013.....**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. D. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Reviews												
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	315	\$47.41 315 X12	\$14,934	0	0	0	\$14,934
Z09	SUPERVISOR, SCIENCE FUNC	CWI	U.C. per ea	1.00	ea	73	\$72.73 73 Z09	\$5,309	0	0	0	\$5,309
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	8747	0	0	\$8,747
NM80	OTHER - SERVICES	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	155	0	\$155
Establish Team												
Z09	SUPERVISOR, SCIENCE FUNC	CWI	U.C. per ea	1.00	ea	54	\$72.73 54 Z09	\$3,927	0	0	0	\$3,927
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	1527	0	0	\$1,527
Subtotal Sales Tax Overheads												
Subtotal Estimate												
Escalation Contingency												
Total Five Year Reviews												
												\$51,839

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 1: Limited Action
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-1**

Client: **L. Cahn, 6-3080**
Prepared By: **J. D. Falker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Update Institutional Controls Plan (Annual)												
Memo: IC annual report-ORB review, incorporate agency comments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WBS P.4.C1.03.02 Institutional Controls Estimate. ID # ERW320046. 1 year costs.												
X12	ENVIRONMENTAL RESTORATION	U.C. per ea	1.00	ea	260	\$47.41 X12	\$12,327	0	0	0	0	\$12,327
	Memo: For prep, tech edit, doc control.											
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	NRPG	0	\$0	\$0	58.69 \$3,521	0	0	0	58.69 \$3,521
	Memo: For tech edit											
NRPR	RECORDS MANAGEMENT	CWI	U.C. per hrs	NRPR	0	\$0	\$0	38.38 \$691	0	0	0	38.38 \$691
	Memo: For prep doc control.											
S05	GEOLOGY	CWI	U.C. per ea	1.00	ea	14 \$05	14 \$05	647.98 \$848	0	0	0	647.98 \$848
	Memo: ORB review											
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	22 X12	22 X12	1043.02 \$1,043	0	0	0	1043.02 \$1,043
	Memo: Incorporate ORB, agency comments											
Subtotal						\$14,218	\$0	\$4,212	\$0	\$0	\$0	\$18,430
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$18,430
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$2,133	\$0	\$632	\$0	\$0	\$0	\$2,754
Total Update Institutional Controls Plan (Annual)						298	\$16,360	\$0	\$4,844	\$0	\$0	\$21,194

Project Name: **WAG 3**
OU 3-14 RUFFS Alternative 1: Limited Action
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2006-M-1**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
 Prepared By: **J. D. Foker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Subtotal OU 3-14 FS ALTERNATIVE 1: LIMITED ACTION												
Sales Tax					\$0		\$0	\$22,087		\$73,229	\$75,000	\$301,729
Overheads					\$0		\$0	\$0		\$0	\$0	\$0
Subtotal Estimate												\$301,729
Escalation												\$0
Contingency												\$45,259
Total OU 3-14 FS ALTERNATIVE 1: LIMITED ACTION												
			1,941		\$151,125		\$0	\$25,400	\$84,213	\$86,250		\$346,989

Summary Report

Project Name: **WAG 3**

CU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Project Number: **2906-M-2a**

<u>ESTIMATE ELEMENT</u>	<u>Estimate Subtotal</u>	<u>Escalation</u> 0.00%	<u>Contingency</u> 22.78%	<u>TOTAL</u>
Total Estimated Cost (TEC)	\$9,101,993			\$11,175,196
Total Cost	\$9,101,993	0.00%	22.78%	\$11,175,196
Rounded Total Cost	(Rounded to the nearest \$ 100000)			\$11,180,000

Type of Estimate:	Project Support	Remarks
Estimator:	J. Folker 6-0322	E/T Cap Over Soils in the Central Area in 2012
Checked By:		E/T Cap Over Soils in the South Perimeter Area in 2035
Approved By:		4' Excavation and Fill in the North Perimeter Area in 2012

Project Name: **WAG 3**
CU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2016-M-2a**

Project Summary Report

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		Capital Costs	\$8,693,917	\$0	\$2,011,992	23.14%	\$10,705,909
		-Construction Activities	\$7,305,812	\$0	\$2,011,992	27.54%	\$9,317,804
		—Mobilization/Demobilization	\$522,116	\$0	\$205,870	39.43%	\$727,986
		----Construction Equipment	\$40,000	\$0	\$15,772	39.43%	\$55,772
		----Submittals/Implementation Plans	\$482,116	\$0	\$190,068	39.43%	\$672,214
		----Operational Plans	\$149,660	\$0	\$59,011	39.43%	\$208,671
		----Develop MSA Plan	\$41,228	\$0	\$16,256	39.43%	\$57,484
		----Develop ORR FOA & Imp. Plan	\$41,228	\$0	\$16,256	39.43%	\$57,484
		----Final Inspection Report	\$250,000	\$0	\$98,575	39.43%	\$348,575
		----Site Security Personnel	\$0	\$0	\$0	40.00%	\$0
		---Monitoring, Sampling, Testing, and Analysis (Capital)	\$0	\$0	\$0	0.00%	\$0
		—Remediation	\$6,783,696	\$0	\$1,806,122	26.62%	\$8,589,818
		----Surface Water Collection or Containment	\$324,639	\$0	\$113,624	35.00%	\$438,263
		----Drainage Ditches & Culverts	\$324,639	\$0	\$113,624	35.00%	\$438,263
		----Retaining Walls	\$593,538	\$0	\$207,738	35.00%	\$801,276
		----CPP-659 Retaining Wall	\$477,411	\$0	\$167,094	35.00%	\$644,505
		----Valve Box Extensions	\$116,127	\$0	\$40,644	35.00%	\$156,771
		----Soil Excavation/Clean Backfill	\$313,766	\$0	\$203,946	65.00%	\$517,714
		----North Perimeter Area Excavated/Backfill/Dispose (2012)	\$313,766	\$0	\$203,946	65.00%	\$517,714
		----Demolition and Removal	\$1,136,407	\$0	\$397,742	35.00%	\$1,534,149
		----D&D CPP-654 (2012)	\$700,525	\$0	\$245,184	35.00%	\$945,709
		----D&D CPP-699 (2012)	\$435,882	\$0	\$152,559	35.00%	\$588,441
		----Cap or Cover	\$4,415,345	\$0	\$883,069	20.00%	\$5,298,415
		----Infiltration Barrier (2012)	\$1,459,458	\$0	\$291,852	20.00%	\$1,751,350
		----Infiltration Barrier (2035)	\$32,258	\$0	\$6,452	20.00%	\$38,709

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: **INTEC Tank Farm**
 Estimate Number: **28684-M-2a**

Project Summary Report

Client: **L. Cahn, 6-3040**
 Prepared By: **J. Foltz, 6-0322**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		----- Tank Farm ET Cover Central Zone (2012)	\$2,320,154	\$0	\$464,031	20.00%	\$2,784,185
		----- Tank Farm ET Cover South Perimeter Area (2035)	\$603,475	\$0	\$120,695	20.00%	\$724,170
		-Professional/Technical Services (Capital)	\$1,388,104	\$0	\$0	0.00%	\$1,388,104
		---Project Management (Capital)	\$305,291	\$0	\$0	0.00%	\$305,291
		---Remedial Design/Remedial Action Work Plan	\$684,465	\$0	\$0	0.00%	\$684,465
		---Construction Management (Capital)	\$488,348	\$0	\$0	0.00%	\$488,348
		Operational and Maintenance (O&M) Costs	\$234,667	\$0	\$35,200	15.00%	\$269,867
		-O&M Activities	\$83,882	\$0	\$12,582	15.00%	\$96,465
		---Extraction, Containment, or Treatment Systems	\$76,000	\$0	\$11,280	15.00%	\$86,260
		---Project Management (O&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		---Surveillance and Monitoring (S&M)	\$136,612	\$0	\$20,492	15.00%	\$157,104
		---Project Management (S&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,216
		---Monitoring, Sampling, Testing, and Analysis (S&M) (2013,15,20,25...-95)	\$127,730	\$0	\$19,159	15.00%	\$146,889
		-Institutional Controls (IC)	\$14,172	\$0	\$2,126	15.00%	\$16,298
		---Site Information Database (CFLUP) (Annual)	\$2,972	\$0	\$446	15.00%	\$3,418
		---Annual Institutional Control Inspection	\$22,318	\$0	\$348	15.00%	\$2,665
		---Project Management (IC) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		Periodic Costs	\$173,409	\$0	\$26,011	15.00%	\$199,421
		-Construction/O&M Activities (Periodic)	\$109,902	\$0	\$16,485	15.00%	\$126,387
		---Remedy Failure or Replacement (Annual)	\$3,555	\$0	\$633	15.00%	\$4,088
		---Infiltration Barrier Maintenance	\$106,347	\$0	\$16,952	15.00%	\$122,299
		-Professional/Technical Services (Periodic)	\$45,077	\$0	\$6,762	15.00%	\$51,839
		---Five Year Review	\$45,077	\$0	\$6,762	15.00%	\$51,839
		---Update Institutional Controls Plan (Annual)	\$18,430	\$0	\$2,764	15.00%	\$21,194

Project Summary ReportProject Name: **WAG³****OU 3-14 R/FS Alternative 2a: Institutional Controls, Monitoring and Containment**Project Location: **INTEC Tank Farm**Estimate Number: **29664-M-2a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Foller, 6-0322**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
Total	OU 3-14 FS ALTERNATIVE 2a: INSTITUTIONAL CONTROLS, MONITORING & CONTAINMENT		\$9,101,993	\$ 0	\$2,073,204	22.78%	\$11,175,196

DETAIL ITEM REPORT

Project Name:

**WAG 3
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment**

Project Location:

INTEC Tank Farm

Estimate Number:

2006-M-2a

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Construction Equipment												
Memo: Assume 20 pieces of equipment at \$1,000 each.												
	GEN	U.C. per Ls	1.00	Ls	0	\$0	0	0	\$0	\$0	0	20000
Memo:	Assume 20 pieces of equipment at \$1,000 each.											\$20,000
	GEN	U.C. per Ls	1.00	Ls	0	\$0	0	0	\$0	\$0	0	20000
Memo:	Assume 20 pieces of equipment at \$1,000 each.											\$20,000
Subtotal						\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$0	\$0	\$0	\$0	\$0	\$0	\$15,772
-- Total Construction Equipment			0			\$0	\$0	\$0	\$0	\$0	\$0	\$55,772
Operations/Plant												
Memo: Operational plans include TPR's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, HI Exposure and Sampling Plans, Wall Abandonment Plans, Handling/Transport/Disposal Plans, Site Security Plans, and Quality Control Plans.												
	CWI	U.C. per yr	1.00	YR	0	\$0	0	0	\$0	37573	0	37573
Operational & Layout plan (cost per year)										\$37,573	0	\$37,573
Memo:	The operation and layout plan will be a annually produced external document that will be used as a basis for budget. This document will be reviewed through the ORB process prior to state, EPA, and DOE review. (cost from previous ISG estimate)											
	CWI	U.C. per yr	1.00	YR	0	\$0	0	0	\$0	6530	0	6530
Rad monitoring & control plan (cost per year)										\$6,530	0	\$6,530
Memo:	The radiation monitoring and control plan will be a annually produced document that will utilize pre-existing Rad Con procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)											
	CWI	U.C. per yr	1.00	YR	0	\$0	0	0	\$0	5557	0	5557
HI exposure & sample plan (cost per year)										\$5,557	0	\$5,557
Memo:	The industrial hygiene exposure and sampling plan will be a annually produced document that will utilize pre-existing IH procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)											

Operations/Plant

Memo: Operational plans include TPR's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, HI Exposure and Sampling Plans, Wall Abandonment Plans, Handling/Transport/Disposal Plans, Site Security Plans, and Quality Control Plans.

CWI
 Operational & Layout plan (cost per year)
 Memo: The operation and layout plan will be a annually produced external document that will be used as a basis for budget. This document will be reviewed through the ORB process prior to state, EPA, and DOE review. (cost from previous ISG estimate)

CWI
 Rad monitoring & control plan (cost per year)
 Memo: The radiation monitoring and control plan will be a annually produced document that will utilize pre-existing Rad Con procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)

CWI
 HI exposure & sample plan (cost per year)
 Memo: The industrial hygiene exposure and sampling plan will be a annually produced document that will utilize pre-existing IH procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)

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 Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>JOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Operational Plans												
Memo: Operational plans include TPR's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, and Quality Control Plans.												
Training Plan	CWI		U.C. per LS	1.00	LS	0	\$0	0	0	\$0	50000	0
Quality Control Plan	CWI		U.C. per LS	1.00	LS	0	\$0	0	0	\$0	50000	0
Subtotal							\$0	\$0	\$0	\$0	\$149,660	\$0
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$0	\$0	\$149,660
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$0	\$0	\$59,011
.... Total Operational Plans							0	\$0	\$0	\$0	\$208,671	\$0
Develop MSA Plan												
Memo: The MSA plan will be a annually produced document. The cost associated with this plan includes generation of the plan, project review of the plan, document finalization, and generation of a checklist (cost from previous ISG estimate).												
MSA plan	CWI		U.C. per LS	1.00	LS	0	\$0	0	0	\$0	41228	0
Subtotal							\$0	\$0	\$0	\$0	\$41,228	\$0
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$0	\$0	\$41,228
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$0	\$0	\$16,256
.... Total Develop MSA Plan							0	\$0	\$0	\$0	\$57,484	\$0

Develop MSA Plan

Memo: The MSA plan will be a annually produced document. The cost associated with this plan includes generation of the plan, project review of the plan, document finalization, and generation of a checklist (cost from previous ISG estimate).

MSA plan	CWI		U.C. per LS	1.00	LS	0	\$0	0	0	\$0	41228	0
Subtotal							\$0	\$0	\$0	\$0	\$41,228	\$0
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$0	\$0	\$41,228
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$0	\$0	\$16,256
.... Total Develop MSA Plan							0	\$0	\$0	\$0	\$57,484	\$0

DETAIL ITEM REPORT

Project Name: WAG³
OU 3-4 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2906-46-2a

Client: L. Cahn, 6-3080
 Prepared By: J. Foller, 6-0322
 Estimate Type: Project Support

Develop ORR POA & Imp. Plan

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Memo: The ORR Plan Of Action (POA) and the Implementation plan's combined cost is assumed to equal the the MSA plan cost.												
ORR POA & Imp plan	CWI		1.00	LS	0	\$0	\$0	0	\$0	\$41,228	0	\$41,228
Subtotal						\$0	\$0	\$0	\$0	\$41,228	\$0	\$41,228
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$41,228
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$0	\$0	\$0	\$0	\$0	\$0	\$16,256
...Total Develop ORR POA & Imp. Plan			0			\$0	\$0	\$0	\$67,484	\$0		\$67,484

Final Inspection Report

Memo:	Cost Allowance is based on the PERA for WAG 7 SDA (MEEL/EXT-02-01268) Rev-0.											
	CWI											
	FINAL INSPECTION REPORT											
Subtotal						\$250,000	\$0	0	0	\$0	0	\$250,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$250,000
Escalation						\$98,575	\$0	\$0	\$0	\$0	\$0	\$98,575
Contingency												
...Total Final Inspection Report			0			\$348,575	\$0	\$0	\$0	\$0		\$348,575

Site Security Personnel

Memo:	It is assumed that INL will maintain security personnel required for construction activities.											
	CWI											
Security Support @ Site Access Gate						0.01	\$0	0	\$0	\$0	\$0	0.01

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 R/F/S Alternative 2a: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2956-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>JOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Security Personnel												
Memo: <i>If it is assumed that INL will maintain security personnel required for construction activities.</i>												
Subtotal			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sales Tax			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$0
Escalation			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
- Total Site Security Personnel			0									\$0

Monitoring, Sampling, Testing, and Analysis (Capital)

	U.C. per LS	1.00 LS	0	0	0	0	0	0	0	0	0	0.01
Memo: Analytical laboratory capital equipment costs will be paid for by RAL												
Subtotal												
Sales Tax			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$0
Escalation			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
- Total Monitoring, Sampling, Testing, and Analysis (Capital)			0									\$0

Drainage Ditches & Culverts

Drainage Ditches	GEN	U.C. per LF	3,000.00 LF	3,000.00 LF x \$500/LF = \$1,500.00	0	0	0	0	0	0	0	69.4
Memo: Per estimate file # 2956-E, 236 CY concrete/1700 LF = 0.1388 CY/LF x \$500/LF = \$69.40/LF.												

DETAIL ITEM REPORT

Project Name: WAG³
OU-3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 29864-M-2a

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Drainage Ditches & Culverts												

Culverts	GEN	U.C. per LF	1,000.00	LF	0	\$0	0	0	\$0	\$43,400	0	\$43,400
Memo: Per estimate file # 2856-E (FY-2000), 30" CMP @ \$40/LF installed directs. Escalated 9.06% = \$43,40 direct												
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$251,600	\$0	\$0	\$251,600
Sales Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$73,039	\$0	\$0	\$73,039
Overheads	29.03%											
Subtotal Estimate	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$374,639
Escalation												
Contingency												
Total Drainage Ditches & Culverts	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$438,263	\$0	\$0	\$438,263

CPP-659 Retaining Wall

20 ft High Retaining Wall Around North & West Sides of CPP-659	GEN	U.C. per	370.00	0	0	\$0	0	0	\$370,000	0	0	\$370,000
Memo: Assume 20' high x 500' x 1' ft thick = 370 CY @ \$1000/CY directs												
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$370,000	\$0	\$0	\$370,000
Sales Tax												
Overheads	29.03%											
Subtotal Estimate	\$0	\$370,094	\$0	\$0	\$370,094							
Escalation												
Contingency												
Total CPP-659 Retaining Wall	0	\$0	\$544,505	\$0	\$0	\$544,505						

Valve Box Extensions

Valve Box Extensions @ 10 ft each	GEN	U.C. per	90.00	0	0	\$0	0	0	\$90,000	0	0	\$90,000
Memo: Assume 6 each @ 10' high x 40' x 1' ft thick = 15 CY @ \$1000/CY directs												
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000	\$0	\$0	\$90,000

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax

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DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-14 R/F/S Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2905-M-2a

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
	Valve Box Extensions											
Subtotal			\$0		\$0		\$0		\$90,000		\$0	\$90,000
Sales Tax:			\$0		\$0		\$0		\$0		\$0	\$0
Overheads:			\$0		\$0		\$0		\$26,127		\$0	\$26,127
Subtotal Estimate												\$116,127
Escalation			\$0		\$0		\$0		\$0		\$0	\$0
Contingency			\$0		\$0		\$0		\$40,844		\$0	\$40,844
--Total Valve Box Extensions			0		\$0		\$0		\$156,771		\$0	\$156,771

North Perimeter Area Excavated Backfill [D190908 (2012)]

Memo: North perimeter area = 22,278 SF (from OU 3-14 FS Map, dated 3/15/06). 22,278 x 4 ft deep excavation = 89,104 CF. 89,104 CF/27 CY/CY = 3,300 CY.

Excavation: Assume 0.5 CY/min. cycle time to excavate, swing, walk, load into Stoller rolloffs, return. 50 min hour x 7 hr day. 350 min x 0.5 CY/min = 175 CY/day. 3,300 CY/175 CY/Day = 20 Days. This cycle time accounts for survey time.

00E104 Cat 350 3 cy Hoe	GEN	U.C. per ea	1.00	ea	200	00E1014	\$0	\$27,084	\$0	\$0	\$0	27,084
00E2050 4000 gal Water Truck	GEN	U.C. per ee	1.00	ea	200	00E2050	\$0	\$6,276	\$0	\$0	\$0	6276
CN-EQLT EQUIPMENT OPERATOR LIGHT EQUIP GROUP 4(<4 CY)	GEN	U.C. per ee	1.00	ea	200	\$38.20 CN-EQLT	\$7,640	\$0	\$0	\$0	\$0	7,640
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	1.00	ea	200	\$37.47 CN-TRHV	\$7,494	\$0	\$0	\$0	\$0	7,494
CN-LABR LABORER	GEN	U.C. per ee	2.00	ea	400	\$35.21 CN-LABR	\$14,084	\$0	\$0	\$0	\$0	14,084
	STOLLER	U.C. per TONS										
			5,709.00	TONS	0							

Transport Soils to IODF

Memo: Unit cost from DWP 5/1/2005 - 9/30/2005. Team Stoller-INEEEL CERCLA Disposal Facility, INTEC transportation costs. 1.73 tonsCY negotiated factor.

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2006-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>North Perimeter Area Excavate/Backfill/Dump 2012</u>												
<u>Memo:</u> North perimeter area = 22,278 SF (from OU 3-14 FS Map, defined 3/15/06). 22,278 x 4 ft deep excavation = 89,104 CF. \$9,104 CF/27 CY/CY = 3,300 CY.												
00E0940	GEN	U.C. per ea	1.00	ea	130	00E0940	0	\$5,698	0	0	0	\$5,698
Memo: Cat 950 4 cy Loader Loader at material source.												
00E2010	GEN	U.C. per ea	4.00	ea	130	00E2010	0	\$16,354	0	0	0	\$16,354
Memo: Import 3,300' x 1 = 3,630 CY material from Rye Grass Flats (10 miles one way). 3,630 CY/10 CY/Load = 363 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7												
00E2050	GEN	U.C. per ea	1.00	ea	130	00E2050	0	\$4,079	0	0	0	\$4,079
4000 gal Water Truck												
00E0912	GEN	U.C. per ea	1.00	ea	130	00E0912	0	\$8,563	0	0	0	\$8,563
Cat 14 Grader												
00E0630	GEN	U.C. per ea	1.00	ea	130	00E0630	0	\$3,441	0	0	0	\$3,441
Cat CS-433 Vib Smooth Drum Compactor												
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	390	CN-ENGR	\$15,362	0	0	0	0	\$15,362
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	5.00	ea	650	CN-TRHV	\$24,356	0	0	0	0	\$24,356
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	260	CN-LABR	\$9,155	0	0	0	0	\$9,155
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	260	CN-SURV	\$9,563	0	0	0	0	\$9,563
Reseeding	GEN	U.C. per ACRES	0.50	ACRES	0		0	\$0	0	3000	0	\$1,500

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2986-N-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
North Perimeter Area Excavate/Backfill/Dispose (2012)												
Memo: North perimeter area = 22,276 SF (from OU 3-14 FS Map, dated 3/16/09). 22,276 x 4 ft deep excavation = 89,104 CF. 89,104 CF/27 CF/CY = 3,300 CY.												
CWI	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	\$15,000	0	\$15,000
Characterization of North Perimeter												
Characterization cores would be collected on a random grid from the north perimeter area at 10 locations to a depth of 4-ft analyzed for Cs-137 at RESL. If more than 50% exceeded the PRG we would do no more characterization and would assume all of the soil was contaminated at concentrations above the PRG and would dig all of it up for disposal at ICDF.												
Assume cores would be analyzed in two-ft increments. Under this assumption sampling and analysis for 20 soil samples for Cs-137 will be done. Direct-push rig and split-spoons will be used \$5,000 for analytical services, validation, adders, and SAM services, for 20 samples. For retrieving samples, 2 person crew and equipment @ \$250/hr for 1 week. Total = \$5K + \$10K = \$15K.												
Subtotal	\$87,760		\$71,496		\$0		\$0	\$107,844		\$0		\$267,099
Sales Tax	\$0		\$0		\$0		\$0	\$0		\$0		\$0
Overheads	\$25,477		\$20,755		\$0		\$435	\$0				\$46,667
Subtotal Estimate												\$313,766
Escalation												
Contingency												
... Total North Perimeter Area Excavate/Backfill/Dispose (2012)	2,360		\$185,840		\$162,214		\$0	\$178,661		\$0		\$617,714
D&D CPP-654 (2012)												
D&D CPP-654	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	\$700,525	700,525	\$700,525
Memo: Refer to Intrepid D&D model, 2003, for 18,000 SF CPP-654. Escalation (2003 to 2006) factor = 9.06%												
Subtotal	\$0		\$0		\$0		\$0	\$0		\$700,525		\$700,525
Sales Tax	\$0		\$0		\$0		\$0	\$0		\$0		\$0
Overheads	0.00%											
Subtotal Estimate												\$700,525
Escalation												
Contingency												
... Total D&D CPP-654 (2012)	0		\$0		\$0		\$0	\$0		\$0		\$0

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2006-M-2a**

Client: **L. Cain, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
D&D CPP-699 (2012)												
		CWI		U.C. per LS								
	D&D CPP-659		1.00	LS	0	\$0	\$0	0	0	\$0	\$0	\$435,882
	Memo: Refer to Intrepid D&D model, 2003, for 11,200 SF CPP-699. Escalation (2003 to 2006) factor = 9.06%											
	Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$435,882
	Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Overheads					\$0	\$0	\$0	\$0	\$0	\$0	\$0
	0.00%											
	Subtotal Estimate											
	Escalation					\$0	\$0	\$0	\$0	\$0	\$0	\$435,882
	Contingency					\$0	\$0	\$0	\$0	\$0	\$0	\$152,559
	---Total D&D CPP-699 (2012)		0			\$0	\$0	\$0	\$0	\$0	\$0	\$588,441

Infiltration Barrier (2012)

Grading and Preparation	GEN	U.C. per LS	1.00	LS	0	\$0	0	0	\$100,000	0	\$0	\$100,000
Low Permeability Asphalt Cap for Infiltration	GEN	U.C. per ACRES	0.51	ACRES	0	\$0	0	0	\$107,100	0	\$0	\$210,000
Barrier-North Perimeter Area												
Memo: Per "Marcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. North perimeter area = 22.276 SF = 0.51 acres												
Low Permeability Asphalt Cap for Infiltration	GEN	U.C. per ACRES	0.90	ACRES	0	\$0	0	0	\$189,000	0	\$0	\$189,000
Barrier-South Perimeter Area												
Memo: Per "Marcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. South perimeter area = 39.181 SF = 0.90 acres												

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2996-M-2a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Infiltration Barrier (2012)												

Low Permeability Asphalt Cap for Infiltration Barrier+PRCZ Area	GEN	U.C. per ACRES	3.50	ACRES	0	\$0	0	\$0	0	\$210,000	0	210,000
Memo: Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. PRCZ Perimeter= 151,853 SF = 3.5 acres												
Subtotal			\$0	\$0	\$0	\$0	\$0	\$0	\$1,131,100	\$0	\$1,131,100	
Sales Tax			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Overheads			\$0	\$0	\$0	\$0	\$0	\$0	\$328,358	\$0	\$328,358	
Subtotal Estimate												\$1,459,458
Escalation												
Contingency												
Total Infiltration Barrier (2012)			0	\$0	\$0	\$0	\$0	\$0	\$1,751,350	\$0	\$1,751,350	

Infiltration Barrier (2035)

Grading and Preparation	GEN	U.C. per LS	1.00	LS	0	\$0	0	0	\$25,000	0	25000	
Subtotal			\$0	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0	\$25,000	
Subtotal Estimate												
Escalation												
Contingency												
Total Infiltration Barrier (2035)			0	\$0	\$0	\$0	\$0	\$0	\$38,769	\$0	\$38,769	

Tank Farm ETI Cover Central Zone (2012)

Grading Fill-Central Area	GEN	U.C. per CY	16,372.00	CY	0	\$0	0	\$0	\$734,880	0	40	
Memo: Assume fill material is available within 1 mile of job site. Quantity from CWI Design Engineering.												
04/22/2006	18:24:05	Estimating Services Department										

Material Costs where applicable include Idaho State Sales Tax
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Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **29064-W-2a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Tank Farm ET Cover-Central Zone (2012)</u>												
00E0940	GEN "6" Gravel Layer-Central Area*	U.C. per ea	1.00	ea	0	\$0	0	\$0	\$0	0	0	0
Memo:	Surface area ET cover central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CF/CY = 3283 CY.											
00E0940	GEN Pea Gravel	U.C. per CY	3,283.00	CY	0	\$0	0	\$0	0	25	0	\$62,075
Memo:	Pea gravel material cost delivered (local vendor quote): Deliver 6" (3,283 CY) gravel from town to borrow pile, 1/2 mile from job site. 3,280 CY /10 CY/Load = 328 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 Loads/day/truck. 328 Loads/24 Loads/Day/Truck = 14 Days/Truck. 14 Days/Truck = 4 Days. Equipment costs from Blue Book.											
00E0940	GEN Cat 950 2 cy Loader	U.C. per ea	1.00	ea	40	00E0940	0	\$0	\$0	0	0	1753.2
Memo:	Loader at material source.											\$1,753
00E0940	GEN 12 cy End Dump	U.C. per ea	4.00	ea	160	00E2010	0	\$0	\$5,032	0	0	1258
00E0940	GEN 4000 gal Water Truck	U.C. per ea	1.00	ea	40	00E2050	0	\$0	\$1,255	0	0	1255.2
00E0940	GEN Cat 14 Grader	U.C. per ea	1.00	ea	40	00E0912	0	\$0	\$0	0	0	\$1,255
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor	U.C. per ea	1.00	ea	40	00E0630	0	\$0	\$1,059	0	0	1058.8
CN-ENGR	GEN OPERATING ENGINEER	U.C. per ea	3.00	ea	40	\$39.39	1575.6	\$0	\$0	0	0	1575.6
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (COWBOY <9000GTVW)	U.C. per ea	5.00	ea	200	CN-TRHV	\$7,494	\$0	\$0	0	0	\$7,494
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	40	\$25.21	1409.4	\$0	\$0	0	0	1409.4
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	40	\$37.19	1487.6	\$0	\$0	0	0	1487.6
												\$2,975

Project Name: **WAG 2²**
OU 3-14 R/F/S Alternative 2x: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2866-M-2a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
00E0840	GEN "1'-0" Cobble Layer-Central Area ^a Memo: Surface area ET cover Central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 CY/27 CF/CY = 6564 CY.		U.C. per ea	1.00	ea	0	0	0	\$0	\$0	0	0
00E2010	GEN Cobble Stone-Central Area Memo: Cobble stone material cost delivered (local vendor quote). Deliver 6,564 CY cobble from town, to borrow pile, 1/2 mile from job site. 6,564 CY/10 CY/Load = 656 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 656 Loads/24 Loads/Day/Truck = 28 Days/Truck. 28 Days/Truck/4 Trucks = 7 Days. Equipment costs from Blue Book.		U.C. per CY	6,564.00	CY	0	0	0	\$0	\$0	0	\$262,560
00E2050	GEN 12 cy End Dump 4000 gal Water Truck		U.C. per ea	4.00	ea	280	00E2050	0	\$0	\$8,806	0	0
00E0912	GEN Cat 14 Grader		U.C. per ea	1.00	ea	70	00E0912	0	\$0	\$2,197	0	0
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor		U.C. per ss	1.00	ea	70	00E0630	0	\$0	\$4,611	0	0
CN-ENGR	GEN OPERATING ENGINEER		U.C. per ss	3.00	ea	70	039.39	2757.3	0	\$0	0	2757.3
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)		U.C. per ss	5.00	ea	350	CN-TRHV	\$8,272	\$0	\$0	0	\$8,272
CN-LABR	GEN LABORER		U.C. per ss	2.00	ea	140	CN-LABR	\$13,115	\$0	\$0	0	\$13,115
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)		U.C. per ss	2.00	ea	140	CN-SURV	\$4,929	\$0	\$0	0	2622.9

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: **INTEC Tank Farm**
 Estimate Number: **29664-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
00E0940	GEN "6" Gravel Layer-Central Area*	U.C. per ea	1.00	ea	0			0	\$0	\$0	0	0
	Memo: Surface area ET cover central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY/CY = 3283 CY.											
00E0910	GEN Pea Gravel	U.C. per CY	3,283.00	CY	0			0	\$0	\$0	25	0
	Memo: Pea gravel material cost delivered (local vendor quote): Deliver 6" (3,283 CY) Gravel from town to borrow pile, 1/2 mile from job site. 3,280 CY/10 CY/Load = 328 Loads. Cycle time (load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 328 Loads/24 Loads/Day/Truck = 14 Days/Truck. 14 Days/Truck/4 Trucks = 4 Days. Equipment costs from Blue Book.											\$82,075
00E0940	GEN Cat 950 4 cy Loader	U.C. per ea	1.00	ea	40	00E0940		0	\$1,753	\$0	0	0
	Memo: Loader at material source.											
00E0910	GEN 12 cy End Dump	U.C. per ea	4.00	ea	160	00E2010		0	\$5,032	\$0	0	0
00E0950	GEN 4000 gal Water Truck	U.C. per ea	1.00	ea	40	00E2050		0	\$1,255	\$0	0	0
00E0912	GEN Cat 14 Grader	U.C. per ea	1.00	ea	40	00E0912		0	\$2,635	\$0	0	0
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor	U.C. per ea	1.00	ea	40	00E0630		0	\$1,059	\$0	0	0
CN-ENGR	GEN OPERATING ENGINEER	U.C. per ea	3.00	ea	120	CN-ENGR		1575.6	\$0	\$0	0	1575.6
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)	U.C. per ea	5.00	ea	200	CN-TRHV		7,494	\$0	\$0	0	\$4,727
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	40	\$35.21		140.4	\$0	\$0	0	140.4
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	40	\$37.19		148.6	\$0	\$0	0	148.6

DETAIL ITEM REPORT

Project Name: **WAG³**
OU 3-4 RUFFS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2008-M-2a**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-3322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												

00E0940	GEN Cat 950 4 cy Loader Memo: Loader at material source.	GEN	U.C. per ea	1.00	ea	410	00E0940	0	\$0	\$0	0	0
3.5' USCS Soil Type ML or CL Central Zone												
00E2010	GEN 12 cy End Dump	GEN	U.C. per ea	8.00	ea	3,280	00E2010	0	\$0	\$103,156	0	1284.5
00E2050	GEN 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	410	00E2050	0	\$0	\$12,866	0	12845.8
00E0912	GEN Cat 14 Grader	GEN	U.C. per ea	1.00	ea	410	00E0912	0	\$0	\$27,007	0	27,007
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	410	00E0630	0	\$0	\$10,853	0	10,853
CN-ENGR OPERATING ENGINEER	GEN	GEN	U.C. per ea	3.00	ea	1,230	CN-ENGR	16149.9	\$0	\$0	0	16149.9
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<9600GVW)	GEN	GEN	U.C. per ea	9.00	ea	3,690	CN-TRHV	15322.7	\$0	\$0	0	15322.7
CN-LABR LABORER	GEN	GEN	U.C. per ea	2.00	ea	820	CN-LABR	14436.1	\$0	\$0	0	14436.1
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	GEN	U.C. per ea	2.00	ea	820	CN-SURV	15247.9	\$0	\$0	0	15247.9
GEN *6" Topsoil with Gravel Admix Central Zone*	GEN	GEN	U.C. per ea	1.00	ea	0	0	0	\$0	\$0	0	0
Memo: Surface area ET cover central area = 177.216 SF (Qty from CWI Design Engineering). Volume = 177.216 x 0.5 = 88,608 CF/27 CY/CY = 3282 CY. Import 34 of 6' lift (2462 CY) material from Rye Grass Flats (10 miles one way). 1/4 of 6" lift (820 CY) will be from pea gravel from town to borrow pile. For rye grass flats soil: 2462 CY/10 CY/Load = 246 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 246 Loads/7 Loads/Day/Truck = 35 Days/Truck. 35 Days/Truck/4 Trucks = 9 Days. Equipment costs from Blue Book.												

Estimating Services Department Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 RIUS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-N-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Tank Farm ET Cover Central Zone (2012)</u>												
00E0940	GEN "USCS Soil Type Ml or CL" Memo: For dry grass flats soil, 2462 CY/10 CY/Load = 246 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 246 Loads/7 Loads/Day/Truck = 35 Days/Truck. 35 Days/Truck/4 Trucks = 9 Days.	U.C. per ea	1.00	ea	0	\$0	\$0	0	0	0	0	\$0
00E2010	GEN Cat 950 4 cyl Loader Memo: Loader at material source.	U.C. per ea	1.00	ea	90	00E0940	\$0	3044.7 \$3,945	0	\$0	\$0	\$0
00E2050	GEN 4000 gal Water Truck	U.C. per ea	4.00	ea	360	00E2010	\$0	2830.5 \$11,322	0	\$0	\$0	\$0
00E0912	GEN Cat 14 Grader	U.C. per ea	1.00	ea	90	00E0912	\$0	2824.2 \$2,824	0	\$0	\$0	\$0
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor	U.C. per ea	1.00	ea	90	00E0630	\$0	5028.3 \$5,928	0	\$0	\$0	\$0
CN-ENGR	OPERATING ENGINEER	U.C. per ea	3.00	ea	90	00E0630	\$0	2382.3 \$2,382	0	\$0	\$0	\$0
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) {LOWBOY <96000 GVW}	U.C. per ea	5.00	ea	90	00E0630	\$0	3545.1 \$16,862	0	\$0	\$0	\$0
CN-LABR	LABORER	U.C. per ea	2.00	ea	180	CN-LABR	\$0	3168.9 \$6,338	0	\$0	\$0	\$0
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	90	00E0630	\$0	3347.1 \$6,594	0	\$0	\$0	\$0
	GEN 3/8" Pea Gravel	U.C. per CY	820.00	CY	0	\$0	\$0	25 \$20,500	0	\$0	\$0	\$20,500
	Memo: 1/4 of 6" lift (820 CY) will be from pea gravel from town to borrow pile @ \$25/CY. Deliver 820 CY/10 CY/Load = 82 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 82 Loads/24 Loads/Day/Truck = 1 Day. Equipment costs from Blue Book.											

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
00E0940	Cat 950 4 cy Loader Memo: Loader at material source.	GEN	U.C. per ea	1.00	ea	10	00E0940	0	\$438	\$0	0	\$0
00E2010	12 cy End Dump	GEN	U.C. per ea	4.00	ea	10	00E2010	0	\$1,258	\$0	0	\$0
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050	0	\$314	\$0	0	\$0
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10	00E0912	0	\$659	\$0	0	\$0
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10	00E0630	0	\$265	\$0	0	\$0
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10	\$39.39	393.9	\$0	\$0	0	\$0
CN-TRIV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)	GEN	U.C. per ea	5.00	ea	10	\$37.47	374.7	\$0	\$0	0	\$0
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	10	\$35.21	352.1	\$0	\$0	0	\$0
CN-SURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10	\$37.19	371.9	\$0	\$0	0	\$0

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 R/F/S Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **29884-M-2a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
	GEN	U.C. per ACRES	4.07	ACRES	0	\$0	\$0	\$0	\$0	\$0	\$0	\$300
Memo:	Reseeding Central Zone Area 177,216 SF (per CWI Design Eng) = 4.07 Acres											\$12,210
Subtotal						\$356,662	\$245,189	\$0	\$1,194,300	\$0	\$0	\$1,798,151
Sales Tax						\$104,120	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$71,178	\$0	\$0	\$346,705	\$0	\$0	\$522,003
Subtotal Estimate												\$2,320,154
Escalation												
Contingency												
-Total	Tank Farm ET Cover Central Zone (2012)		9,660			\$655,338	\$379,641	\$0	\$1,849,206	\$0	\$0	\$2,784,185
Tank Farm ET Cover South Perimeter Area (2015)												
Memo:	\$4,205 SF (per CWI Design Eng) = 1.25 Acres											
	GEN	U.C. per CY	3,431.00	CY	0	\$0	\$0	\$0	\$0	\$137,240	\$0	\$137,240
Memo:	Grading fill-South Perimeter Area (FY 2035) Assume fill material is available within 1 mile of job site. Quantity from CWI Design Engineering.											
	GEN	U.C. per ea	1.00	ea	0	\$0	\$0	\$0	\$0	\$0	\$0	0.01
Memo:	"6" Gravel Layer-South Perimeter Area" Surface area ET south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = $54,204 \times 0.5 = 27,102 \text{ CF}/27 \text{ CY} = 1004 \text{ CY}$.											
	GEN	U.C. per CY	1,004.00	CY	0	\$0	\$0	\$0	\$0	\$25,100	\$0	\$25,100
Memo:	Pea gravel material cost delivered (local vendor quote). Deliver 6" (1,004 CY) gravel from town to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. NEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 100 Loads/24 Loads/Day/Truck. 4 Days/Truck. 4 Trucks = 1 Day. Equipment costs from Blue Book.											
00E0940	GEN	U.C. per ea	1.00	ea	10	00E0940	0	438.3	0	0	0	438.3
	Cat 950 4 cy Loader											
Memo:	Loader at material source.											
00E2010	GEN	U.C. per ea	4.00	ea	40	00E2010	0	344.5	0	0	0	344.5
	12 cy End Dump											

DETAIL ITEM REPORT

Project Name:

Page 3

TEC Tank Farm
Alt 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment

Estimate Number: 2088-M-22

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

Project Name: **WAG 3**
OU 3-14 RUFS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2886-M-2a**

DETAIL ITEM REPORT

Memo: **64,206 SF (per CW Design Engg) = 1.25 Acres**
4000 gal Water Truck
Cat 14 Grader
Cat CS-433 Vib Smooth Drum Compactor

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ETI Cover South Perimeter Area (2015)												
00E2050	GEN	U.C. per ea	1.00	ea	20	00E2050	\$0	627.6	0	0	0	627.6
								\$628	\$0	\$0	\$0	\$628
00E0912	GEN	U.C. per ea	1.00	ea	20	00E0912	\$0	1317.4	0	0	0	1317.4
								\$1,317	\$0	\$0	\$0	\$1,317
00E0630	GEN	U.C. per ea	1.00	ea	20	00E0630	\$0	529.4	0	0	0	529.4
								\$529	\$0	\$0	\$0	\$529
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	20	\$39.39	787.6	0	0	0	0	787.8
						60	CN-ENGR	\$2,363	\$0	\$0	\$0	\$2,363
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<9600GVM)	GEN	U.C. per ea	5.00	ea	20	\$37.47	749.4	0	0	0	0	749.4
						100	CN-TRHV	\$3,747	\$0	\$0	\$0	\$3,747
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	20	\$35.21	704.2	0	0	0	0	704.2
						40	CN-LABR	\$1,408	\$0	\$0	\$0	\$1,408
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	20	\$37.19	743.8	0	0	0	0	743.8
						40	CN-SURV	\$1,488	\$0	\$0	\$0	\$1,488
*6" Gravel Layer-South Perimeter Area												
Memo: Surface area ETI south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27, CF/CY = 1004 CY.		U.C. per ea	1.00	ea	0	0	\$0	\$0	0	0	0	0
GEN		U.C. per CY	1,004.00	CY	0	\$0	0	0	25	25	0	25
								\$0	\$25,100	\$0	\$0	\$25,100
Pea Gravel material cost delivered (local vendor quote). Deliver 6" (1,004 CY) gravel from town, to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. NEEF Factor (7 hr day, 50 minute hour) = 24 (loads/day/truck) (20 Loads/24 Loads/Day/Truck = 4 Days/Truck. 4 Days/Truck = 1 Day. Equipment costs from Blue Book.												
00E0940	GEN	U.C. per ee	1.00	ea	10	00E0940	\$0	438.3	0	0	0	438.3
								\$438	\$0	\$0	\$0	\$438
Cat \$50.4 cy Loader	GEN	U.C. per ee	4.00	ea	10	00E2010	\$0	314.5	0	0	0	314.5
Memo: Loader at material source.								\$315	\$0	\$0	\$0	\$315
00E2010	GEN	U.C. per ea	4.00	ea	40	00E2010	\$0	\$1,258	\$0	\$0	\$0	\$1,258

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2866-M-2a**

Client: **L. Cain, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo:												
	54,205 SF (per CW Design Engn) = 1.26 Acres											
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050	\$0	313.0	0	0	313.0
00E0812	Car 14 Grader	GEN	U.C. per ea	1.00	ea	10	00E0912	\$0	531.4	\$0	\$0	\$314
00E0630	Car Cc-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10	00E0630	\$0	658.7	0	0	658.7
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10	\$39.39	\$1,182	0	\$0	\$0	39.9
CN-TRHV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <4600GVW)	GEN	U.C. per ea	5.00	ea	50	CN-TRHV	\$1,874	374.7	0	0	374.7
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	10	\$35.21	\$704	352.1	0	0	352.1
CN-SURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	20	CN-SURV	\$744	371.9	0	0	371.9
3.5' USCS Soil Type ML or CL South Perimeter Area		GEN	U.C. per ea	1.00	ea	0	\$0	\$0	0	0	0	0.01
Memo: Surface area ET cover south perimeter area = 54,204 SF (Qty from CW Design Engineering). Volume = 54,204 x 3.5 = 189,714 CF/27 CY/CY. Import 3.5' (7,026 CY) material from Rye Grass Flats (10 miles one way). 7,026 CY/10 CY/Load = 703 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEF Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 703 Loads/7 Loads/day/truck = 100 Days/Truck. 100 Days/Truck/8 Trucks = 13 Days. Equipment costs from Blue Book.												
00E0940	Car 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	130	00E0940	\$0	5697.9	0	0	5697.9
	Memo: Loader at material source.											
00E2010	12 cy End Dump	GEN	U.C. per ea	8.00	ea	1,040	00E2010	\$0	4098.5	0	0	4098.5
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	130	00E2050	\$0	4079.4	0	0	4079.4

Material Costs where applicable include Idaho State Sales Tax
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Project Name: WAG 3 OU 3-14 RUFFS Alternative Project Location: INTech Tank Farm Estimate Number: 2986-M-2a

DETAIL ITEM REPORT

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2038)												
Memo: 54,205 SF (per CWH Design Engg) = 1.25 Acres												
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	130	00E0912	0	\$8,563.1	0	0	0	\$8,563.1
00E0630 Cat CS-43 Vibrating Drum Compactor	GEN	U.C. per ea	1.00	ea	130	00E0630	0	\$3,441.1	0	0	0	\$3,441.1
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	130	\$39.39	\$15,362	\$0	\$0	0	0	\$15,362
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)	GEN	U.C. per ea	9.00	ea	1,170	\$37.47	\$43,840	\$0	\$0	0	0	\$43,840
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	130	\$35.21	\$9,155	\$0	\$0	0	0	\$9,155
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	130	\$37.49	\$9,669	\$0	\$0	0	0	\$9,669
"6" Topsoil with Gravel Admix South Perimeter Area*	GEN	U.C. per ea	1.00	ea	0	0	\$0	\$0	\$0	0.01	0	\$0
Memo: Surface area ET cover south perimeter area = 54,204 SF (Qty from CWH Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY. Import 3/4 of 6" lift (750 CY) material from Rye Grass Flats (10 miles one way). 1/4 of 6" lift (250 CY) will be from gravel from town to borrow pile. For rye grass flats soil, 750 CY/10 CY/Load = 75 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEF Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 75 Loads/Day/Truck = 11 Days/Truck. Equipment costs from Blue Book.												
"USCS Soil Type ML or CL"	GEN	U.C. per ea	1.00	ea	0	0	\$0	\$0	\$0	0.01	0	\$0
Memo: For rye grass flats soil, 750 CY/10 CY/Load = 75 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEF Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 75 Loads/Day/Truck = 11 Days/Truck. Equipment costs from Blue Book.												
00E0940 Cat 950 4 cyl Loader Memo: Loader at material source.	GEN	U.C. per ea	1.00	ea	30	00E0940	0	\$1,315	0	0	0	\$1,315
00E2010 12 cu End Dump	GEN	U.C. per ea	4.00	ea	30	00E2010	0	\$3,774	0	0	0	\$3,774
00E2050 400 cu Mover Truck	GEN	U.C. per ea	1.00	ea	30	00E2050	0	\$941.4	0	0	0	\$941.4

Include Idaho State Sales Tax
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Estimating Services Department

Project Name: WAG³
 OU-3-14 R/WFS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-M-2a

DETAIL ITEM REPORT

Memo: 54,205 SF (per CWT Design Engg) = 1.25 Acres
 Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

Code	Description	Contactor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	Total
Link Farm ETI Cover South Perimeter Area (2035)												
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	30	00E0912	0	\$1,976	0	0	\$1,976
00E0630	GEN	U.C. per ea	1.00	ea	30	00E0630	0	794	0	0	0	794
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	30	\$38.39	\$181.7	0	0	0	\$3,545
CN-TRHV	GEN	U.C. per ea	5.00	ea	150	CN-TRHV	\$5,621	0	0	0	0	\$5,621
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	30	\$35.27	\$105.3	0	0	0	\$105.3
CN-SURV	GEN	U.C. per ea	2.00	ea	30	\$37.19	\$111.57	0	0	0	0	\$111.57
	GEN	U.C. per CY	250.00	CY	0	0	0	0	\$0	0	0	0
00E0940	Cat 950 4 Cy Loader	GEN	U.C. per ea	1.00	ea	10	00E0940	0	438.3	0	0	438.3
	Memo: Loader at material source.								\$438	0	0	\$438
00E2010	12 cy End Dump	GEN	U.C. per ea	1.00	ea	10	00E2010	0	314.5	0	0	314.5
00E0250	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050	0	312.8	0	0	312.8
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10	00E0912	0	658.7	0	0	658.7
00E0630	Cat C-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10	00E0630	0	264.7	0	0	264.7
									\$265	0	0	\$265

Memo: 1/4 or 6' lift (250 CY) will be from pea gravel from town to borrow pile @ \$25/CY. Deliver 250 CY gravel from town to borrow pile, 1/2 mile from job site. 250 CY/10 CY/Load = 25 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEF Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 25 Loads/24 Loads/Day/Truck = 1 Day/Truck. Equipment costs from Blue Book.

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: WAG 3
OU 3-14 RWFS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2906-M-2a

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2035)												
Memo: \$4,205 SF (per CWI Design Engg) = 1.25 Acres												
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10	\$39.39	\$39.39	0	0	0	0	\$1,182
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9800GVM)	GEN	U.C. per ee	2.00	ea	10	\$37.47	\$37.47	0	0	0	0	\$374.70
CN-LABR LABORER	GEN	U.C. per ee	2.00	ea	10	\$35.21	\$35.21	0	0	0	0	\$352.10
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ee	2.00	ea	10	\$37.19	\$37.19	0	0	0	0	\$371.90
Reseeding South Perimeter Area												
Memo: 54,204 SF (per CWI Design Engg) = 1.25 Acres												
Subtotal Sales Tax Overheads			29.03%			\$112,928	\$77,014	\$0	\$277,760	\$0	\$467,702	\$0
Subtotal Estimate Escalation Contingency						\$32,783	\$22,357	\$0	\$80,634	\$0	\$135,774	
---Total Tank Farm ET Cover South Perimeter Area (2035)												
Project Management (Capital)												
PM cost estimated at 5% of construction	CWI	U.C. per \$	7,305.812.00	\$	0	\$365,291	0.05	\$0	0	\$0	0	\$365,291.05

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2886-M-2a**

Client: **L. Cain, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Project Management (Capital)												
Subtotal					\$0		\$0		\$0		\$0	\$365,291
Sales Tax					\$0		\$0		\$0		\$0	\$0
Overheads			0.00%		\$0		\$0		\$0		\$0	\$0
Subtotal Estimate					\$0		\$0		\$0		\$0	\$365,291
Escalation					\$0		\$0		\$0		\$0	\$0
Contingency					\$0		\$0		\$0		\$0	\$0
-- Total Project Management (Capital)			0		\$365,291		\$0		\$0		\$0	\$365,291

Remedial Design/Remedial Action Work Plan

CWI	U/C per \$	7,305,812.00	\$\$	0	0	0	0	0	0	0	0	0.08 \$584,465
RA Work Plan cost estimated at 8% of construction Memo: Estimate assumes equipment design will be done by equipment manufacturers, for the track-hole.												
Subtotal					\$584,465		\$0		\$0		\$0	\$584,465
Sales Tax					\$0		\$0		\$0		\$0	\$0
Overheads			0.00%		\$0		\$0		\$0		\$0	\$0
Subtotal Estimate					\$0		\$0		\$0		\$0	\$584,465
Escalation					\$0		\$0		\$0		\$0	\$0
Contingency					\$0		\$0		\$0		\$0	\$0
-- Total Remedial Design/Remedial Action Work Plan			0		\$584,465		\$0		\$0		\$0	\$584,465

Construction Management (Capital)

CWI	U/C per \$	7,305,812.00	\$\$	0	0	0	0	0	0	0	0	0.06 \$438,349
CM cost estimated at 6% of construction												

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RUEFS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **29866-M-28**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Falter, 6-3322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Construction Management (Capital)												
Subtotal					\$438,349	\$0	\$0	\$0	\$0	\$0	\$0	\$438,349
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$438,349
Escalation					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Construction Management (Capital)			0		\$438,349	\$0	\$0	\$0	\$0	\$0	\$0	\$438,349

Extraction, Containment, or Treatment Systems

Memo: **Costs for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittal of reports to agencies. For basis, see estimate file # 2984-X. [Total cost per year is \$528,000/7 yrs (FY06-12) = \$75,000 annual cost.**

Surface Water Controls	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	0	\$0	\$75,000	\$75,000
Subtotal						\$0	\$0	\$0	\$0	\$0	\$75,000	\$75,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$75,000	\$75,000
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$0	\$0	\$0	\$0	\$0	\$11,250	\$11,250
Total Extraction, Containment, or Treatment Systems			0			\$0	\$0	\$0	\$0	\$0	\$86,250	\$86,250

Project Management (O&M) (Annual)

Memo: **Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource loading, etc. 10 hrs/month. Based on current/proposed crew makeup and determined duration periods.**

E28	PROJECT MANAGEMENT	CWI	U.C. per hrs	10.00	hrs	120	\$74.02	\$886.24	0	0	0	0
												\$8,882

DETAIL ITEM REPORT

Project Name: WAG 3
 OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-M-2a

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Project Management (O&M) (Annual)												
Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource leading, etc. 10 hrs/month. Based on current/proposed crew makeup and determined duration periods.												
Subtotal					\$8,882	\$0	\$0	\$0	\$0	\$0	\$0	\$8,882
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
Contingency					\$1,332	\$0	\$0	\$0	\$0	\$0	\$0	\$1,332
—Total	Project Management (O&M) (Annual)		120		\$10,215	\$0	\$0	\$0	\$0	\$0	\$0	\$10,215
 Project Management (S&M) (Annual)												
Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource leading, etc. Based on current/proposed crew makeup and determined duration periods.												
E28	PROJECT MANAGEMENT	CWI	U.C. per months	12.00	months	10 E28	\$74.02	740.2	\$0	\$0	\$0	740.2
Subtotal							\$8,882	\$0	\$0	\$0	\$0	\$8,882
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%				\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
Contingency							\$1,332	\$0	\$0	\$0	\$0	\$1,332
—Total	Project Management (S&M) (Annual)		120		\$10,215	\$0	\$0	\$0	\$0	\$0	\$0	\$10,215

Memo: Monitoring, Sampling, Testing, and Analysis (S&M) (2013.15.20.25....\$5)

Memo: Includes radiation surveys and environmental monitoring for CIP-96. For groundwater monitoring, group 5, estimate file # 850-DWP2-11B and WBS P.4.C1.04.01, Routine GW monitoring LCB estimates are used as basis. A WMR 2013-2015 then every 5 years till 2025. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cahn email to J. Folter dated 08/12/2005.

Project Name: **WAG 3
OU 3-14 R/F'S Alternative 2a: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2806-N-2a**

"Soil Monitoring"
 Memo: A No Longer Contained In Determination will be approved for all INTEC groundwater and perched water.
 The tank farm tanks will be clean closed.
 The RI/BRA showed that there was no risk from the RCRA constituents in the soil. Therefore a RCRA cap, post closure permit, or RCRA groundwater monitoring program will not be required.

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	0	\$0	0	0	0	0	0.01 \$0
U-60	RADIOLOGICAL CONTROL TECH	CWI	U.C. per ea	1.00	ea	40	\$47.41	1896.4 \$1,896	\$0	0	0	1896.4 \$1,896
	"Groundwater Monitoring"	CWI	U.C. per ea	1.00	ea	40	\$40.07	1602.8 \$1,603	\$0	0	0	1602.8 \$1,603
	Annual Well Monitoring, Including Report	CWI	U.C. per ea	1.00	ea	0	\$0	0	0	0	0	0.01 \$0
	Prepare TOS, Work Planning & Mobilization	CWI	U.C. per LS	NM60	LS	40	\$53.67	2146.8 \$2,147	\$0	1463 \$1,463	0	0
	Memo: Based on Group 5 DWP estimate file # 8530-DWP2-11B, escalated to 2006.											3699.6 \$3,610
S15	ANALYTICAL CHEMISTRY	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	0	0	0.01 \$0
T10	LABORATORY TECH	CWI	U.C. per ea	1.00	ea	12	\$53.67	644.04 \$644	\$0	0	0	644.04 \$644
T15	ENVIRONFIELD TECH	CWI	U.C. per ea	1.00	ea	200	\$29.64	5968 \$5,968	\$0	0	0	5968 \$5,968
U16	FITTER	CWI	U.C. per ea	1.00	ea	3	\$36.61	109.83 \$110	\$0	0	0	109.83 \$110
U76	CONSTRUCTION IRON WORKER (FORCE ACCT)	CWI	U.C. per ea	1.00	ea	30	\$33.36	1000.8 \$1,001	\$0	0	0	1000.8 \$1,001

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: _____

WAG 3 QU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment

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Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the INL CEFU; update changes or terminations agreed to by the agencies. Incorporation of ORB comments. See WBS F.4.C.1.C.03.02, Institutional Controls, estimated by R. Fitch. Once per year

X112	CWI	U.C. per hr\$	1.00	ea	50	\$47.41	2370.5	\$0	0	0	2370.5
ENVIRONMENTAL RESTORATION											
NRPG	WRITER/EDITOR	CWI	U.C. per hrs		2.00	NRPG	0	\$0	58.69	0	58.69
								\$0	\$117	\$0	\$117

DETAIL ITEM REPORT

Project Name: Project Location: Estimate Number:

Annual Institutional Control Inspection

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Memo: *Annual ENVIRONMENTAL REPORT FOR ASSOCIATES*

DETAIL ITEM REPORT

Project Name: _____

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Remedy Failure or Replacement [Annual]												
Meemo: Warning signs and physical barriers replacement. (Annual costs) See Institutional Controls WBS No. P.4.C1.03.02.ID # ERM3200100, "Maintain Institutional Controls" for basis of estimate.												
NM80	OTHER - SERVICES	CWI		U.C. per Lot	1.00	NM80 Lat	0	\$0	\$0	\$0	\$0	\$0
								\$2,755	\$0	\$0	\$0	\$0
Subtotal								\$0	\$0	\$0	\$0	\$3,555
States Tax								\$0	\$0	\$0	\$0	\$0
Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimates								\$0	\$0	\$0	\$0	\$3,555
Escalation								\$413	\$0	\$120	\$0	\$0
Contingency												\$533
Total	Remedy Failure or Replacement [Annual]							\$3,168	\$0	\$0	\$0	\$4,088

Infiltration Barrier Maintenance

Annual Maintenance of Barrier @ 3% of Construction Costs		U.C. per \$	3,544,897.06	\$	0	\$0	\$0	\$0	0.03	0	0.03	\$106,347	\$0	\$106,347
Memo: Total replacement of barrier in approximately 30 years.														
Subtotal						\$0	\$0	\$0						
Sales Tax						\$0	\$0	\$0						
Overheads						\$0	\$0	\$0						
Subtotal Estimate						\$0	\$0	\$0						
Escalation						\$0	\$0	\$0						
Contingency						\$0	\$0	\$0						
Total Infiltration Barrier Maintenance						\$0	\$0	\$0					\$122,298	

Five Year Review

Est.

Assessment Data*

04/22/2006 18:24:05

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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Material Costs where applicable include Idaho State Sales Tax
Page No. 32

DETAIL ITEM REPORT

Project Name: WAG 3
 OU-3-14 RUF-S Alternative 2a: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2886-N-2a

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Reviews												
<i>Memo: Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU-1-10 LTS and Five Year Review actual costs. Beginning in 2013.....</i>												
Z09	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	1.00 ea	.84	\$72.73			\$109.32	0	0	0
					84	209			\$6,109	\$0	\$0	\$0
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	0				0	\$0		2398
									\$2,398	\$0	\$0	\$2,398
	Prepare Draft	CWI	U.C. per LS	1.00 LS	0				0	\$0		0
									\$0	\$0		0
NRPF	ELECTRONIC PUBLICATIONS	CWI	U.C. per hrs	NRPF	0				0	\$0		36.17
									\$181	\$0	\$0	\$181
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	NRPG	0				0	\$0		58.89
									\$1,643	\$0	\$0	\$1,643
T08	ILLUSTRATOR/ARTIST	CWI	U.C. per ea	1.00 ea	4	\$36.51			145.04	0	0	0
					4	T08			\$146	\$0	\$0	\$146
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	315 X12	315	\$47.47			14934.15	0	0	0
									\$14,934	\$0	\$0	\$14,934
Z09	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	73 ea	73	\$72.73			5009.29	0	0	0
					73	209			\$5,309	\$0	\$0	\$5,309
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	0				0	\$0		8747
									\$8,747	\$0	\$0	\$8,747
NM80	OTHER - SERVICES	CWI	U.C. per LS	NM80	0				0	\$0		155
									\$155	\$0	\$0	\$155
	Establish Team	CWI	U.C. per LS	1.00 LS	0				0	\$0		0
Z09	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	54 ea	54	\$72.73			3927.42	0	0	0
					54	209			\$3,927	\$0	\$0	\$3,927

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

Project Name: _____

DETAIL ITEM REPORT

Project Name: WAG 3
Project Location: OU 3-14 RVFS Alternative 2a: Institutional Controls, Monitoring and Containment
Estimate Number: 2966-M-2a

[Redacted] | [Redacted] | [Redacted] | [Redacted]

Memo: IC annual report-ORB review; Incorporate agency comments; revise IC plan; prep. graphic support; tech edit; doc control; revise IC plan-ORB review. Ref WBS P.4.C1.Q3.02 [Institutions' Control Estimate, ID # FRA123456789, 1 year costs. Please note that RA report is WA.

ENVIRONMENTAL RESTORATION
CWI K12

Memo: For prep, tech edit, doc control. **CWI**

Memo: For tech edit **WRITER/EDITOR** **NRPG**

NRPR RECORDS MANAGEMENT <i>Memo:</i> For prep doc control.	CWI GEOLOGY <i>Memo:</i> ORB review
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2a: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-2a**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Update Institutional Controls Plan (Annual)</u>												
<u>Memo:</u> IC annual report-ORB review. Incorporate agency comments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WBS P.4.C1.03.02 Institutions!												
X12	Controls Estimate ID # ERMA3200045. 1 year costs. Please note that RA report is N/A.											
	CWI		U.C. per sq	ea	22	\$47.41		1043.02		0	0	1043.02
	ENVIRONMENTAL RESTORATION				22	X12	\$1,043			\$0	\$0	\$1,043
	Memo: Incorporate ORB, agency comments.											
Subtotal												
Sales Tax												
Overheads			0.00%									
Subtotal Estimate												
Escalation												
Contingency												
Total Update Institutional Controls Plan (Annual)			296			\$16,360	\$0	\$4,644	\$0	\$0	\$0	\$21,194

Subtotal OU 3-14 FS ALTERNATIVE 2a: INSTITUTIONAL CONTROLS,	\$2,328,866	\$393,699	\$22,087	\$3,859,296	\$1,251,407	\$7,855,355
Sales Tax MONITORING & CONTAINMENT	\$0	\$0	\$0	\$0	\$0	\$0
Overheads	\$162,379	\$114,291	\$0	\$969,968	\$0	\$1,246,638
Subtotal Estimate						
Escalation						
Contingency						
Total OU 3-14 FS ALTERNATIVE 2a: INSTITUTIONAL CONTROLS, MONITORING & CONTAINMENT	16,871	\$2,804,834	\$651,100	\$25,400	\$6,017,690	\$1,676,172

Summary Report

Project Name: **WAG 3**

OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Project Number: **2886-M-2b**

ESTIMATE ELEMENT

<u>Total Estimated Cost (TEC)</u>	<u>Estimate Subtotal</u>	<u>Escalation</u> <u>0.00%</u>	<u>Contingency</u> <u>19.80%</u>	<u>TOTAL</u>
	\$8,398,309	\$0	\$1,662,702	\$10,061,011
Total Cost	\$8,398,309	0.00%	19.80%	\$10,061,011

Rounded Total Cost (Rounded to the nearest \$ 10000)

Type of Estimate:	Project Support	Remarks
Estimator:	J. Folker, 6-0322	E/T Cap Over Soils in the Central Zone and South Perimeter Area in 2035 4' Excavation and Fill in the North Perimeter Area in 2012
Checked By:		
Approved By:		

Project Name: WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: INTEC Tank Farm
Estimate Number: 2988-M-2b

Project Summary Report

Client: L. Cain, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Capital Costs</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		Capital Costs	\$7,990,233	\$1,601,490	\$0	\$1,601,490	20.04%	\$9,591,724
		-Construction Activities	\$6,714,482	\$0	\$0	\$0	23.69%	\$8,315,972
		Mobilization/Demobilization	\$622,116	\$0	\$205,770	\$0	39.43%	\$727,986
		Construction Equipment	\$40,000	\$0	\$15,772	\$0	39.43%	\$55,772
		Submittals/Implementation Plans	\$492,116	\$0	\$190,098	\$0	39.43%	\$672,214
		Operational Plans	\$149,660	\$0	\$59,011	\$0	39.43%	\$208,671
		Develop MSA Plan	\$41,228	\$0	\$16,256	\$0	39.43%	\$57,484
		Develop ORR POA & Imp. Plan	\$41,228	\$0	\$16,256	\$0	39.43%	\$57,484
		Final Inspection Report	\$250,000	\$0	\$98,575	\$0	39.43%	\$348,575
		Site Security Personnel	\$0	\$0	\$0	\$0	40.00%	\$0
		Monitoring, Sampling, Testing, and Analysis (Capital)	\$0	\$0	\$0	\$0	0.00%	\$0
		Remediation	\$8,112,386	\$0	\$1,386,220	\$0	22.64%	\$7,587,886
		Surface Water Collection or Containment	\$106,347	\$0	\$37,221	\$0	35.00%	\$143,568
		Drainage Ditches & Culverts (2035)	\$106,347	\$0	\$37,221	\$0	35.00%	\$143,568
		Soil Excavation/Clean Backfill	\$313,766	\$0	\$203,948	\$0	65.00%	\$517,714
		North Perimeter Area Excavate/Backfill/Dispose (2012)	\$313,766	\$0	\$203,948	\$0	65.00%	\$517,714
		Cap or Cover	\$5,772,253	\$0	\$1,154,451	\$0	20.00%	\$6,926,703
		Infiltration Barrier (2012)	\$2,552,278	\$0	\$512,456	\$0	20.00%	\$3,074,733
		Infiltration Barrier (2035)	\$99,998	\$0	\$20,000	\$0	20.00%	\$119,998
		Tank Farm ET Cover Central Zone (2035)	\$2,472,747	\$0	\$494,549	\$0	20.00%	\$2,967,296
		Tank Farm ET Cover South Perimeter Area (2035)	\$637,230	\$0	\$127,446	\$0	20.00%	\$764,676
		Professional/Technical Services (Capital)	\$1,275,752	\$0	\$0	\$0	0.00%	\$1,275,752
		Project Management (Capital)	\$335,724	\$0	\$0	\$0	0.00%	\$335,724
		Remedial Design/Remedial Action Work Plan	\$537,158	\$0	\$0	\$0	0.00%	\$537,158
		Construction Management (Capital)	\$402,869	\$0	\$0	\$0	0.00%	\$402,869

Project Name: WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 29884-M-2b

Client: L. Cahn, 6-3880
 Prepared By: J. Fuller, 6-0322
 Estimate Type: Project Support

Project Summary Report

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		Operational and Maintenance (O&M) Costs	\$234,667	\$0	\$35,200	15.00%	\$269,867
		...O&M Activities	\$83,882	\$0	\$12,582	15.00%	\$96,465
		---Extraction, Containment, or Treatment Systems	\$76,000	\$0	\$11,250	15.00%	\$86,250
		---Project Management (O&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		...Surveillance and Monitoring (S&M)	\$136,612	\$0	\$20,492	15.00%	\$157,104
		---Project Management (S&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		---Monitoring, Sampling, Testing, and Analysis (S&M) (2013,15,20,25,...85)	\$127,730	\$0	\$19,168	15.00%	\$146,889
		---Institutional Controls (IC)	\$14,172	\$0	\$2,126	15.00%	\$16,298
		...Site Information Database (CFLUP) (Annual)	\$2,972	\$0	\$446	15.00%	\$3,418
		---Annual Institutional Control Inspection	\$2,318	\$0	\$348	15.00%	\$2,666
		---Project Management (IC) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,215
		Periodic Costs	\$173,409	\$0	\$26,011	15.00%	\$199,421
		...Construction/O&M Activities (Periodic)	\$109,902	\$0	\$16,485	15.00%	\$126,387
		---Remedy Failure or Replacement (Annual)	\$3,855	\$0	\$633	15.00%	\$4,088
		---Infiltration Barrier Maintenance	\$106,347	\$0	\$16,982	15.00%	\$122,299
		...Professional/Technical Services (Periodic)	\$45,077	\$0	\$6,762	15.00%	\$51,839
		---Five Year Reviews	\$45,077	\$0	\$6,762	15.00%	\$51,839
		...Update Institutional Controls Plan (Annual)	\$18,430	\$0	\$2,764	15.00%	\$21,194

Total OU 3-14 FS ALTERNATIVE 2b: INSTITUTIONAL CONTROLS, MONITORING & CONTAINMENT

\$8,398,309 \$0 \$1,662,702 19.80% \$10,061,011

DETAIL ITEM REPORT

Project Name: **WAG³**
OU-3-14 RUFFS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2988-M-2b**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Construction Equipment												
Memo: Assume 20 pieces of equipment at \$1,000 each.												
GEN Mobilize Equipment for Cap												
Memo: Assume 20 pieces of equipment at \$1,000 each.												
GEN Demobilize Equipment for Cap												
Memo: Assume 20 pieces of equipment at \$1,000 each.												
Subtotal												
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0,000
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	
Contingency						\$0	\$0	\$0	\$0	\$0	\$0	
Total Construction Equipment						0	\$0	\$0	\$0	\$55,772		\$55,772

Operational Plans

Memo: Operational plans include TPR's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, IH Exposure and Sampling Plans, Well Abandonment Plans, Handling/Transport/Disposal/Plans, Site Security Plans, and Quality Control Plans.

CWI U.C. per YR 1.00 YR
Operational & Layout plan (cost per year)
Memo: The operation and layout plan will be a annually produced external document that will be used as a basis for budget. This document will be reviewed through the ORB process prior to state, EPA, and DOE review.
(cost from previous ISG estimate)

CWI U.C. per YR 1.00 YR
Rad monitoring & control plan (cost per year)
Memo: The radiation monitoring and control plan will be a annually produced document that will utilize pre-existing Rad Con procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)

CWI U.C. per YR 1.00 YR
IH exposure & sample plan (cost per year)
Memo: The industrial hygiene exposure and sampling plan will be a annually produced document that will utilize pre-existing IH procedures. Annual updates are assumed to require the same effort as the initial document.
(cost from previous ISG estimate)

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
Page No. 1

DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-M-2b

Client: L. Cahn, 6-3080
 Prepared By: J. Foller, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Operational Plans												

Memo: Operational plans include TPR's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, Handling/Transport/Dispose Plans, Site Security Plans, and Quality Control Plans.

Training Plan	CWI	U.C. per LS	1.00	L.S.	0	\$0	0	0	\$0	\$50,000	0	\$50,000
Quality Control Plan	CWI	U.C. per LS	1.00	L.S.	0	\$0	0	0	\$0	\$50,000	0	\$50,000
Subtotal						\$0	\$0	\$0	\$0	\$149,660	\$0	\$149,660
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimates						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Escalation						\$0	\$0	\$0	\$0	\$59,011	\$0	\$59,011
Contingency												
...Total Operational Plans						0	\$0	\$0	\$0	\$208,671	\$0	\$208,671

Develop MSA Plan

Memo: The MSA plan will be a annually produced document. The cost associated with this plan includes generation of the plan, project review of the plan, document finalization, and generation of a checklist (cast from previous ISG estimates).

MSA plan	CWI	U.C. per LS	1.00	L.S.	0	\$0	0	0	\$0	\$41,228	0	\$41,228
Subtotal						\$0	\$0	\$0	\$0	\$41,228	\$0	\$41,228
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimates						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Escalation						\$0	\$0	\$0	\$0	\$16,256	\$0	\$16,256
Contingency												
...Total Develop MSA Plan						0	\$0	\$0	\$0	\$57,484	\$0	\$57,484

DETAIL ITEM REPORT

Project Name:

**WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: INTEC Tank Farm
Estimate Number: 2386-M-2b**

Client: L. Cahn, 6-3080
Prepared By: J. Folker, 6-0322
Estimate Type: Project Support

Develop ORR POA & Imp. Plan

Memo: The ORR Plan Of Action (POA) and the implementation plan's combined costs is assumed to equal the the MSA plan cost.

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Develop ORR POA & Imp. Plan												
		CWI	U.C. per LS	1.00	LS	0	\$0	0	\$0	\$41,228	0	\$41,228
ORR POA & Imp plan												
Subtotal							\$0	\$0	\$0	\$41,228	\$0	\$41,228
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
0.00%												
Subtotal Estimate												
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$16,256	\$0	\$16,256
....Total Develop ORR POA & Imp. Plan							\$0	\$0	\$0	\$57,484	\$0	\$57,484

Final Inspection Report

Memo: Cost allowance is based on the PERA for WAG 7 SDA (INTEL/EXT-02-01258) Rev-0.

	CWI	U.C. per LS	1.00	LS	0	\$250,000	\$0	0	0	\$0	0	\$250,000
	FINAL INSPECTION REPORT											
Subtotal							\$250,000	\$0	\$0	\$0	\$0	\$250,000
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
0.00%												
Subtotal Estimate												
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$98,575	\$0	\$0	\$0	\$0	\$98,575
....Total Final Inspection Report							\$348,575	\$0	\$0	\$0	\$0	\$348,575

Site Security Personnel

Memo: It is assumed that INL will maintain security personnel required for construction activities.

Security Support @ Site Access Gate	CWI	U.C. per YR	1.00	YR	0	\$0	0	0	0	\$0	0	\$0

DETAIL ITEM REPORT

Project Name: **WAG 3**

OU 3-4 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2966-M-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Security Personnel												

Memo: *It is assumed that INL will maintain security personnel required for construction activities.*

Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sales Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads	0.00%											
Subtotal Estimate												
Escalation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Site Security Personnel	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Monitoring, Sampling, Testing, and Analysis (Capital)

Memo: Analytical laboratory capital equipment costs will be paid for by RAL

Monitoring, Sampling, Testing and Analysis	U.C. per LS	1.00	LS	0	0	0	0	0	0	0	0	0.01
Overheads	0.00%											
Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sales Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
Escalation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Monitoring, Sampling, Testing, and Analysis (Capital)	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Drainage Ditches & Culverts (2035)

Drainage Ditches	GEN	U.C. per LF	1,000.00	LF	0	0	0	69.4	0	69.4	0	\$69,400
Memo: Per estimate file # 2966-E, 236 CY concrete@1700 LF = 0.1388 CY/LF x \$500/LF = \$69,400/LF. Ditches on south side only in 2035.												

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2006-N-2b**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folter, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Drainage Ditches & Culverts (2036)												
Culverts	GEN	U.C. per LF	300.00	LF	0	\$0	\$0	\$0	\$0	\$32,420	\$0	\$82,420
Memo: Per estimate file # 2956-E (FY-2000), 30° CMP @ \$40/LF installed directs. Escalated 9.06% = \$43.40 directs. Culverts on south side only in 2035.												
Subtotal			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sales Tax			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,927
Subtotal Estimate			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106,347
Excavation			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,221
- Total Drainage Ditches & Culverts (2036)			0		\$0	\$0	\$0	\$0	\$0	\$143,568	\$0	\$143,568

North Perimeter Area Excavate/Backfill/Dispose (2012)

Memo: North perimeter area = 22,276 SF (from OU 3-14 FS Map, dated 3/15/06). 22,276 x 4 ft deep excavation = 89,104 CF. 89,104 CF/27 CY = 3,300 CY.

Excavation
 Memo: Assume 0.5 CY/min. cycle time to excavate, swing, walk, load into Stoller rolloffs, return. 50 min hour x 7 hr day. 350 min x 0.5 CY/min = 175 CY/day. 3,300 CY/175 CY/Day = 20 Days. This cycle time accounts for survey time.

00E1014 Cat 350 3 cy Hoe	GEN	U.C. per ea	1.00	ea	200	00E1014	\$0	\$27,084	\$0	\$0	\$0	\$27,084
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	200	00E2050	\$0	\$6,276	\$0	\$0	\$0	\$6,276
CN-EQLT EQUIPMENT OPERATOR LIGHT EQUIP GROUP 4(<4 CY)	GEN	U.C. per ea	1.00	ea	200	CN-EQLT	\$7,640	\$0	\$0	\$0	\$0	\$7,640
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)	GEN	U.C. per ea	1.00	ea	200	\$37.47	\$7,494	\$0	\$0	\$0	\$0	\$7,494
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	200	CN-TRHV	\$7,494	\$0	\$0	\$0	\$0	\$7,494
					400	CN-LABR	\$14,084	\$0	\$0	\$0	\$0	\$14,084

DETAIL ITEM REPORT

Project Name: WAG 3
 OU 3-14 RUFS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-M-2b

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
North Perimeter Area Excavate/Backfill/Dumpose (2012)												
Memo: North perimeter area = 22,278 SF (from OU 3-14 FS Map, dated 3/15/09). 22,278 x 4 ft deep excavation = 88,104 CY. \$9,104 CF/27 CY/CY = 3,300 CY.												
	STOLLER			U.C. per TONS		5,709.00	TONS	0	0	\$0	\$91,344	\$0
	Transport Soils to ICDF							\$0			16	\$91,344
	Memo: Unit cost from DWP 5/1/2005 - 9/30/2005, Team Stoller-INTEC Disposal Facility, INTEC transportation costs. 1.73 tons/CY negotiated factor.											
00E0940	GEN		U.C. per LS	1.00	LS	0		0	0	\$0	\$0	0.01
	Fill							\$0				\$0
	Memo: Import 3,300*1.1 = 3,630 CY material from Rye Grass Flats (10 miles one way). 3,630 CY/10 CY/load = 363 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 363 Loads/7 Loads/Day/Truck = 52 Days/Truck. 52 Days/Truck = 13 Days. Equipment costs from Blue Book.											
00E0940	GEN		U.C. per ea	1.00	ea	130	00E0940	0	5697.9	\$0	\$0	0
	Cat 950 4 cy Loader							\$0	\$5,698	\$0	\$0	\$5,698
	Memo: Loader at material source.											
00E2010	GEN		U.C. per ea	4.00	ea	130	00E2010	0	4068.5	\$0	\$0	0
	12 cy End Dump							\$0	\$16,354	\$0		4068.5
00E2050	GEN		U.C. per ea	1.00	ea	130	00E2050	0	4079.4	\$0	\$0	0
	4000 gal Water Truck							\$0	\$4,079	\$0		4079.4
00E0912	GEN		U.C. per ea	1.00	ea	130	00E0912	0	6563.1	\$0	\$0	0
	Cat 14 Grader							\$0	\$8,563	\$0		6563.1
00E0630	GEN		U.C. per ea	1.00	ea	130	00E0630	0	3441.1	\$0	\$0	0
	Cat CS-433 Vib Smooth Drum Compactor							\$0	\$3,441	\$0		3441.1
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	130	039-39	5120.7	0	0	0	0
								\$0				5120.7
CN-TRHV	GEN		U.C. per ea	5.00	ea	130	\$37.47	4871.1	0	0	0	4871.1
	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<9600G/W)							\$0	\$24,356			
CN-LABR	GEN		U.C. per ea	2.00	ea	130	\$35.21	4577.3	0	0	0	4577.3
	LABORER							\$0	\$9,155	\$0		\$9,155
CN-SURV	GEN		U.C. per ea	2.00	ea	130	\$37.19	4834.7	0	0	0	4834.7
	SURVEYOR INSTRUMENT MAN (GROUP 5)							\$0	\$9,669	\$0		\$9,669

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-4-2b**

Client: **L. Cahn, 6-3040**
Prepared By: **J. Foltz, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
North Perimeter Area Excavated/Backfilled/Dispose (2012)												
Memo: North perimeter area = 22,276 SF (from OU 3-14 FS Map, dated 3/16/06). 22,276 x 4 ft deep excavation = 89,104 CF. 89,104 CF/CF/Y = 3,300 CY.												
Reseeding	GEN	U.C. per ACRES	0.50	ACRES	0	\$0	\$0	\$0	\$0	\$1,500	\$0	\$1,500
		U.C. per LS	1.00	LS	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CWI												
Characterization of North Perimeter												
Memo: Assume cores would be collected from a random grid from the north perimeter area at 10 locations to a depth of 4 ft. Analyzed for Cs-137 at RESL. If more than 50% exceeded the PRG we would do no more characterization and would assume all of the soil was contaminated at concentrations above the PRG and would dig all of it up for disposal at I-CDF.												
Assume cores would be analyzed in two-ft increments. Under this assumption sampling and analysis for 20 soil samples for Cs-137 will be done. Direct-push rig and split-spoons will be used \$5,000 for analytical services, validation, adders, and SAM services, for 20 samples. For retrieving samples, 2 person crew and equipment @ \$250/hr for 1 week. Total = \$5K + \$10K = \$15K.												
Subtotal						\$87,760	\$71,496	\$0	\$0	\$107,844	\$0	\$267,059
Sales Tax						\$25,477	\$20,755	\$0	\$0	\$435	\$0	\$46,667
Overheads												
17.47%												
Subtotal Estimate												\$113,766
Escalation												
Contingency												
- Total North Perimeter Area Excavated/Backfilled/Dispose (2012)			2,160			\$186,840	\$162,214	\$0	\$178,861	\$0	\$817,714	

Infiltration Barrier (2012)

Grading and Preparation	GEN	U.C. per LS	1.00	LS	0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$100,000
Low Permeability Asphalt Cap for Infiltration	GEN	U.C. per ACRES	0.51	ACRES	0	\$0	\$0	\$0	\$0	\$210,000	\$0	\$107,100
Barrier-North Perimeter Area												
Memo: Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membranes at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. North perimeter area = 22,276 SF = 0.51 acres												
Low Permeability Asphalt Cap for Infiltration	GEN	U.C. per ACRES	4.07	ACRES	0	\$0	\$0	\$0	\$0	\$210,000	\$0	\$210,000
Barrier-Central Zone Area												
Memo: Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. 177.216 SF (per CWI Design Eng) = 4.07 Acres												

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **29866-M-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Infiltration Barrier (2012)												
	GEN	U.C. per ACRES	0.90	ACRES	0			\$0	\$0	\$0	\$0	\$189,000
	Low Permeability Asphalt Cap for Infiltration											210,000
	Barrier-South Perimeter Area											\$189,000
Memo:	Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. South perimeter area = 39.181 SF = 0.90 acres											
	GEN	U.C. per ACRES	3.50	ACRES	0			\$0	\$0	\$0	\$0	\$735,000
	Low Permeability Asphalt Cap for Infiltration											210,000
	Barrier-PRCZ Area											\$735,000
Memo:	Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. PRCZ Perimeter= 151.853 SF = 3.5 acres											
Subtotal					\$0	\$0	\$0	\$0	\$1,985,800	\$0	\$0	\$1,985,800
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads					\$0	\$0	\$0	\$0	\$576,478	\$0	\$0	\$576,478
Subtotal Estimate					\$0	\$0	\$0	\$0	\$512,456	\$0	\$0	\$2,562,278
Escalation												
Contingency												
-- Total Infiltration Barrier (2012)					0	\$0	\$0	\$0	\$3,074,733	\$0	\$0	\$3,074,733
 Infiltration Barrier (2036)												
	GEN	U.C. per LS	1.00	LS	0			\$0	\$0	\$0	\$0	25000
	Grading and Preparation											25000
												\$25,000
												\$25,000

DETAIL ITEM REPORT

Project Name: WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: INTEC Tank Farm
Estimate Number: 2005-44-2b
Client: L. Cahn, 6-3080
Prepared By: J. Folker, 6-0322
Estimate Type: Project Support

Task Force ET Cover Central Zone (2035)

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2066-M-2b**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2035)												
Memo:	Scope Includes Infiltration barrier removal. For re-grass sites soil and top soil with 25% admix quantities, and footprint areas, see K. Keller to J. Folker email dated February 20, 2006.											
00E0840	GEN	U.C. per ea	1.00	ea	40	00E0940	\$0	1753.2	0	0	0	\$1,753
Cat 950 4 cy Loader					40		\$1,753		\$0	\$0	\$0	
Memo: Loader at material source.												
00E2010	GEN	U.C. per ea	4.00	ea	160	00E2010	\$0	1258	0	0	0	\$1258
12 cy End Dump					40		\$0,032		\$0	\$0	\$0	\$6,032
00E2050	GEN	U.C. per ea	1.00	ea	40	00E2050	\$0	1255.2	0	0	0	\$1255.2
4000 gal Water Truck					40		\$1,255		\$0	\$0	\$0	\$1,255
00E0912	GEN	U.C. per ea	1.00	ea	40	00E0912	\$0	2634.8	0	0	0	\$2,635
Cat 14 Grader					40		\$2,635		\$0	\$0	\$0	
00E0630	GEN	U.C. per ea	1.00	ea	40	00E0630	\$0	1058.8	0	0	0	\$1,058
Cat CS-433 Vib Smooth Drum Compactor					40		\$1,058		\$0	\$0	\$0	
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	40	\$39.39	\$4,727	0	0	0	0	\$175.6
					40		\$4,727		\$0	\$0	\$0	\$4,727
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <8600GVW)	GEN	U.C. per es	5.00	ea	200	CN-TRHV	\$7,494	1498.8	0	0	0	\$7,494
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	40	\$35.21	\$2,817	1408.4	0	0	0	\$2,817
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	40	\$37.19	\$2,975	1487.6	0	0	0	\$2,975
"1-0' Cobble Layer-Central Area"	GEN	U.C. per ea	1.00	ea	0	0	\$0	0	0	0	0	
Memo: Surface area ET cover central area = 177.216 SF (Qty from CWI Design Engineering). Volume = 177.216 x 1.0 = 177.216 CF/27 CF/CY = 6564 CY.												
Cobble Stone-Central Area	GEN	U.C. per CY	6,564.00	CY	0	\$0	\$0	40	0	0	0	\$262,560
Memo: Cobble stone material cost delivered (local vendor quote). Deliver 6,564 CY cobble from town, to borrow pile, 1/2 mile from job site. 6,564 CY/10 CY/Load = 656 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEI Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 656 Loads/Truck/4 Trucks = 7 Days. Equipment costs from Blue Book.												

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-N-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2335)												
Memo: Scope includes infiltration barrier removal. For rye grass flats soil and top soil with 25% admix quantities, and footprint areas, see K. Keller to J. Folker email dated February 20, 2006.												
00E0940	GEN	U.C. per ea	1.00	ea	70	00E0940	\$0	3068.7	\$0	0	0	\$3,068.7
Cat 950 4 cy Loader								\$3,068				
Memo: Loader at material source.												
00E2010	GEN	U.C. per ee	4.00	ee	70	00E2010	\$0	201.5	\$0	0	0	\$8,806
12 cy End Dump								\$8,806				
00E2050	GEN	U.C. per ee	1.00	ee	70	00E2050	\$0	296.6	\$0	0	0	\$2,197.5
4000 gal Water Truck								\$2,197				
00E0912	GEN	U.C. per ea	1.00	ea	70	00E0912	\$0	4610.9	\$0	0	0	\$4,611
Cat 14 Grader								\$4,611				
00E0630	GEN	U.C. per ee	1.00	ee	70	00E0630	\$0	1652.9	\$0	0	0	\$1,853
Cat CS-433 Vib Smooth Drum Compactor								\$1,853				
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ee	3.00	ee	70	33.39	\$8,272	0	\$0	0	0	\$2757.3
								\$8,272				
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <3600GVW)	GEN	U.C. per ee	5.00	ee	70	37.47	\$13,115	2622.9	\$0	0	0	\$2622.9
								\$13,115				
CN-LABR LABORER	GEN	U.C. per ee	2.00	ee	140	CN-LABR	\$4,929	2464.7	\$0	0	0	\$4,929
								\$4,929				
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ee	2.00	ee	140	CN-SURV	\$5,207	2603.3	\$0	0	0	\$5,207
								\$5,207				
"6" Gravel Layer-Central Area*	GEN	U.C. per ea	1.00	ea	0	0	\$0	0	\$0	0	0	\$0
Memo: Surface area ET cover central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY/CY = 3283 CY.												
Pea Gravel	GEN	U.C. per CY	3,263.00	CY	0	0	\$0	0	\$0	\$62,075	0	\$62,075
Memo: Pea gravel material cost delivered (local vendor quote). Deliver 6" (3,263 CY) gravel from town to borrow pile, 1/2 mile from job site. 3,260 CY/10 CY/Load = 328 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 Loads/day/truck. 328 Loads/24 Loads/Day/Truck = 14 Days/Truck. 14 Days/Truck = 4 Days. Equipment costs from Blue Book.												

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name:

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Project Location:

Estimate Number

Client: *L. Cahn, 6-3080*
Prepared By: *J. Folker, 6-0322*
Estimate Type: *Project Support*

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
Tank Farm ET Cover Central Zone (2035)												
00E050940	Scope includes infiltration barrier removal. For rye grass flats and top soil with 20% admix quantities, and footprint areas, see K. Koller to J. Folker email dated February 20, 2006.											
Memo:	Cat 950.4 cy Loader Memo: Loader at material source.	GEN	U.C. per ea	1.00	ea	40	00E0940	\$0	\$1,753	0	0	\$1,753
00E050940	Cat 950.4 cy Loader	GEN	U.C. per ea	4.00	ea	160	00E2010	\$0	\$5,032	0	0	\$5,032
00E050940	12 cy End Dump	GEN	U.C. per ea	4.00	ea	160	00E2010	\$0	\$5,032	0	0	\$5,032
00E02050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	40	00E2050	\$0	\$1,255	0	0	\$1,255
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	40	00E0912	\$0	\$2,635	0	0	\$2,635
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	40	00E0630	\$0	\$1,059	0	0	\$1,059
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	40	\$30.39	\$4,727	\$1,575.6	0	0	\$4,727
CN-TRHV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9000GVW)	GEN	U.C. per ea	5.00	ea	40	\$37.47	\$7,494	\$1,498.8	0	0	\$7,494
CNLABR	LABORER	GEN	U.C. per ea	2.00	ea	40	\$35.21	\$2,817	\$1,408.4	0	0	\$2,817
CNSURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	40	\$37.19	\$2,975	\$1,487.6	0	0	\$2,975
GEN	"3.5' USCS Soil Type ML or CL Central Zone"	GEN	U.C. per ea	1.00	ea	0	0	\$0	\$0	0.01	0	0.01
Memo:	Surface area ET cover central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 X 3.5 = 620,256 CF/27 CY. Import 3.5' (22.972 CY) material from Rye/Glass Flats (10 miles one way). 22.972 CY/10 CY/Load = 2.297 Loads/Cycle time (Load, haul, dump, return) = 50 minutes. INEE Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 2,297 Loads/7 Loads/Day/Truck = 328 Days/Truck = 41 Days. Equipment costs from Blue Book.											
00E050940	Cat 950.4 cy Loader	GEN	U.C. per ea	1.00	ea	410	00E0940	\$0	\$17,970.3	0	0	\$17,970.3

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Demand

DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-4 RUEFS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2846-M-2b

Client: L. Cahn, 6-3080
 Prepared By: J. Foltke, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>LOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (12035)												

Memo: Scope includes infiltration barrier removal. For rye grass flats soil and top soil with 25% admix quantities, and footprint area, see K. Keffler to J. Foltke email dated February 20, 2006.

00E02010	12 cy End Dump	GEN	U.C. per ea	8.00	ea	3,280	00E2010	0	\$103,156	\$0	\$0	\$0
00E02050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	410	00E2050	0	\$12,866	\$0	\$0	\$0
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	410	00E0912	0	\$27,007	\$0	\$0	\$0
00E0630	Cat C-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	410	00E0630	0	\$10,853	\$0	\$0	\$0
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	1,230	CN-ENGR	\$48,450	0	\$0	\$0	\$0	\$48,450
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	9.00	ea	3,690	CN-TRHV	\$138,264	0	\$0	\$0	\$0	\$138,264
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	820	CN-LABR	\$28,872	0	\$0	\$0	\$0	\$28,872
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	820	CN-SURV	\$30,496	0	\$0	\$0	\$0	\$30,496
"6" Topsoil with Gravel Admix Central Zone*												
Memo: Surface area ET cover central area = 177,216 SF (Cty from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY = 3,282 CY. Import 3/4 of 6' lift (2462 CY) material from Rye Grass Flats (10 miles one way). 1/4 of 6' lift (820 CY) will be from pea gravel from town to borrow pile. For rye grass flats soil, 2462 CY/10 CY/Load = 246 Loads. Cycle time (Load, haul, dump, return) = 30 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 246 Loads/7 Loads/Day/Truck = 35 Days/Truck. 35 Days/Truck/4 Trucks = 9 Days. Equipment costs from Blue Book.												
USCS Soil Type ML or CL												
Memo: For rye grass flats soil, 2462 CY/10 CY/Load = 246 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 246 Loads/7 Loads/Day/Truck = 35 Days/Truck. 35 Days/Truck/4 Trucks = 9 Days. Equipment costs from Blue Book.												
00E0940	Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	90	00E0940	0	\$3,945	\$0	\$0	\$0
Material Costs where applicable include Idaho State Sales Tax												
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 R/F/S Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **29864-M-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Control Zone (2015)												
Memo: Scope includes infiltration barrier removal. For rye grass mats soil and top soil with 25% admix quantities, and footprint area, see K. Keller to J. Foltke email dated February 20, 2006.												
00E2010 12 cy End Dump	GEN	U.C. per ea	4.00	ea	360	00E2010	0	\$0	2630.5 \$11,322	\$0	0	0
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	90	00E2050	0	\$0	2824.2 \$2,824	\$0	0	0
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	90	00E0912	0	\$0	5928.3 \$5,928	\$0	0	0
00E0830 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	90	00E0830	0	\$0	2382.3 \$2,382	\$0	0	0
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	90	00E0935	0	\$0	3545.1 \$10,636	\$0	0	0
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9500 GVW)	GEN	U.C. per ea	5.00	ea	450	CN-TRHV	0	\$0	3372.3 \$16,862	\$0	0	0
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	180	CN-LABR	0	\$0	3168.9 \$6,338	\$0	0	0
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	180	CN-SURV	0	\$0	3347.1 \$6,694	\$0	0	0
3/8" Pea Gravel												
Memo: 1/4 of 6" lift (820 CY) will be from pea gravel from town to borrow pile @ \$25/CY. Deliver 820 CY gravel from job site, to borrow pile, 1/2 mile from job site. 820 CY/10 CY/Load = 82 Loads. Cycle time (load haul, dump, return) = 15 minutes. (NEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 82 Loads/24 Loads/Day/Truck = 4 Days/Truck. Equipment costs from Blue Book.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	10	00E0940	0	\$0	438.3 \$438	\$0	0	0
Memo: Loader at material source.												
00E2010 12 cy End Dump	GEN	U.C. per ea	4.00	ea	40	00E2010	0	\$0	314.5 \$1,258	\$0	0	0
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050	0	\$0	313.8 \$314	\$0	0	0

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Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name:

WAG 3

OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2966-M-2b**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-4322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2035)												
Memo:												
00E0912	GEN	U.C. per ea	1.00	ea	10	00E0912	\$0	658.7	\$0	0	0	\$658
Cat 14 Grader												
00E0630	GEN	U.C. per ea	1.00	ea	10	00E0630	\$0	264.7	\$0	0	0	\$264.7
Cat CS-433 Vib Smooth Drum Compactor												
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10	\$39.39	\$39.39	0	0	0	0	\$39.39
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<9600GVW)	GEN	U.C. per ea	5.00	ea	10	\$37.47	\$37.47	0	0	0	0	\$37.47
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	10	\$35.21	\$35.21	0	0	0	0	\$35.21
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10	\$37.19	\$37.19	0	0	0	0	\$37.19
Reseeding Central Zone Area	GEN	U.C. per ACRES	4.07	ACRES	0	\$0	\$0	0	0	3000	0	\$0
Memo: 177,216 SF (per CWI Design Engn) = 4.07 Acres												
Subtotal												
Sales Tax												
Overheads												
Subtotal Estimate												
Escalation												
Contingency												
--Total Tank Farm ET Cover Central Zone (2035)												
9,560	\$555,338											\$2,987,298

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 R/F/S Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-N-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs.</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo: 54,206 SF (per CWI Design Engg) ≈ 1.25 Acres												
GEN	U.C. per CY		484.00	CY	0	\$0	0	\$0	\$0	\$26,160	0	\$26,160
D&D Infiltration Barrier			13,060 CF/27 CY/CY = 484 C.Y.		0							
Memo: Barrier is 35'18" S.F. Volume = 35'18" x 4'12" (thk) = 13,060 CF/27 CY/CY = 484 C.Y. Per RS Means Environmental Remediation Cost Data 2003 Edition, escalated to 2006 (9.06%), Demolition, Pavements, unit cost is \$54.05/CY. Cost Includes disposal.												
GEN	U.C. per CY		3,431.00	CY	0	\$0	0	\$0	\$137,240	0	\$0	\$137,240
Grading Fill-South Perimeter Area (FY 2035)												
Memo: Assume fill material is available within 1 mile of job site. Quantity from CWI Design Engineering.												
GEN	U.C. per ea		1,00	ea	0	\$0	0	\$0	\$0	0.01	0	0.01
"6" Gravel Layer-South Perimeter Area*			54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY = 1004 CY.									
GEN	U.C. per CY		1,004.00	CY	0	\$0	0	\$0	\$25,100	0	\$0	\$25,100
Memo: Pea gravel material cost delivered (local vendor quote). Deliver 6" (1,004 CY) gravel from town, to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEI Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 100 Loads/24 Loads/Day/Truck = 4 Days/Truck. 4 Days/Truck/4 Trucks = 1 Day. Equipment costs from Blue Book.												
00E0940	U.C. per ea		1.00	ea	10	00E0940	0	\$436.3	\$0	0	0	\$436.3
Cat 950 4 cy Loader												
Memo: Loader at material source.												
00E2010	U.C. per ea		4.00	ea	10	00E2010	0	\$1,258	\$0	0	0	\$1,258
12 cy End Dump												
00E2050	U.C. per ea		1.00	ea	10	00E2050	0	\$314	\$0	0	0	\$314
4000 Gal Water Truck												
00E0912	U.C. per ea		1.00	ea	10	00E0912	0	\$659	\$0	0	0	\$659
Cat 14 Grader												
00E0630	U.C. per ea		1.00	ea	10	00E0630	0	\$265	\$0	0	0	\$265
Cat CS-433 Vib Smooth Drum Compactor												
CN-ENGR	U.C. per ea		3.00	ea	10	\$39.39	0	\$0	\$0	0	0	393.9
OPERATING ENGINEER												
CN-TRHV	U.C. per ea		5.00	ea	10	\$37.47	0	\$0	\$0	0	0	374.7
TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <96000 GVW)												
04/22/2006												

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2866-M-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2035)												
Memo:	54,205 SF (per CWI Design Engg) = 1.25 Acres											
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	10 20	\$35.21 CN-LABR	\$704	0 \$0	0 \$0	0 \$0	0 \$0	352.1 \$704
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10 20	\$37.19 CN-SURV	\$744	0 \$0	0 \$0	0 \$0	0 \$0	371.9 \$744
GEN	U.C. per ea	1.00	ea		0			0 \$0	0 \$0	0.01 \$0	0 \$0	0.01 \$0
Memo:	*1'-0" Cobble Layer-South Perimeter Area*											
Cobble Stone-South Perimeter Area												
Memo:	Cobble stone material cost delivered (local vendor quote). Deliver 2,008 CY cobble from town, to borrow pile, 1/2 mile from job site. 2,008 CY/10 CY/Load = 201 Loads. Cycle time (load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 201 Loads/24 Loads/Day/Truck = 8 Days/Truck/4 Trucks = 2 Days. Equipment costs from Blue Book											
00E0840 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	20 00E0940	0 \$0		0 \$877	0 \$0	0 \$0	0 \$0	0 \$877
Memo:	Loader at material source.											
00E2010 12 cy End Dump	GEN	U.C. per ea	4.00	ea	20 80	00E2010	\$0	629 \$2,516	0 \$0	0 \$0	0 \$0	629 \$2,516
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	20 00E2050	\$0		627.6 \$628	0 \$0	0 \$0	0 \$0	627.6 \$628
00E0812 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	20 00E0912	\$0		1317.4 \$1,317	0 \$0	0 \$0	0 \$0	1317.4 \$1,317
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	20 20	00E0630	\$0	529.4 \$529	0 \$0	0 \$0	0 \$0	529.4 \$529
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	20 60	\$39.39 CN-ENGR	\$2,363	0 \$0	0 \$0	0 \$0	0 \$0	787.8 \$2,363
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY >9600 GVW)	GEN	U.C. per ea	5.00	ea	20 100	\$37.47 CN-TRHV	\$3,747	0 \$0	0 \$0	0 \$0	0 \$0	749.4 \$3,747

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-4 R/F/S Alternative 2b: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2006-4-2b**

Client: **L. Cahn, 6-3060**
 Prepared By: **J. Folkert, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Tank Farm ET Cover South Perimeter Area (2036)</u>												
Memo:	64,205 SF (per CMI Design Engg) = 1.25 Acres											
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	20	\$35.21		704.2	0	0	0	\$704.2
					40	CN-LABR		\$1,408	\$0	\$0	\$0	\$1,408
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	20	\$37.19		743.8	0	0	0	\$743.8
					40	CN-SURV		\$1,488	\$0	\$0	\$0	\$1,488
"6" Gravel Layer-South Perimeter Area*	GEN	U.C. per ea	1.00	ea	0			0	0	0	0	0.01
Memo: Surface area ET south perimeter area = 54,204 SF (Qty from CMI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY = 1004 CY.								\$0	\$0	\$0	\$0	\$0
Pea Gravel	GEN	U.C. per CY	1,004.00	CY	0			0	0	0	0	25
Memo: Pea gravel material cost delivered (local vendor quote). Deliver 6 (1,004 CY) gravel from town to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 100 Loads/24 Loads/Day/Truck = 4 Days/Truck. 4 Days/Truck/4 Trucks = 1 Day. Equipment costs from Blue Book.								\$0	\$25,100	\$0	\$0	\$25,100
00E0940 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	10	00E0940		0	428.3	0	0	0
Memo: Loader at material source.					10			\$0	\$438	\$0	\$0	\$438
00E2010 12 cy End Dump	GEN	U.C. per ea	4.00	ea	10	00E2010		0	314.5	0	0	0
					40			\$0	\$1,258	\$0	\$0	\$1,258
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050		0	313.8	0	0	0
					10			\$0	\$314	\$0	\$0	\$314
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10	00E0912		0	658.7	0	0	0
					10			\$0	\$659	\$0	\$0	\$659
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10	00E0630		0	264.7	0	0	0
					10			\$0	\$265	\$0	\$0	\$265
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10	\$39.39		393.9	0	0	0	393.9
					30	CN-ENGR		\$1,182	\$0	\$0	\$0	\$1,182
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<3600GVW)	GEN	U.C. per ea	5.00	ea	10	\$37.47		374.7	0	0	0	374.7
					50	CN-TRHV		\$1,874	\$0	\$0	\$0	\$1,874

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2906-M-2b**

Client: **L. Cain, 6-3080**
 Prepared By: **J. Folter, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo: 84,206 SF (per CWI Design Engg) = 1.26 Acres												
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	10	\$35.21	352.1	\$0	0	0	0	\$32.1
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10	\$37.19	371.9	\$0	0	0	0	\$7.04
"3.5' USCS Soil Type ML or CL South Perimeter Area"	GEN	U.C. per ea	1.00	ea	0	0	0	\$0	0	0	0	\$7.44
Memo: Surface area ET cover South perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 3.5 = 189,714 CF/27 CY/CY = 7,026 CY. Import 3.5' (7,026 CY) material from Rye Grass Flats (10 miles one way). 7,026 CY/10 CY/Load = 703 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute 'hour') = 7 loads/day/truck. 703 Loads/7 Loads/Day/Truck = 100 Days/Truck. 100 Days/Truck/8 Trucks = 13 Days. Equipment costs from Blue Book.												
00E0940 Cat 950 4 CY Loader	GEN	U.C. per ea	1.00	ea	130	00E0940	0	\$589.79	0	0	0	\$589.9
Memo: Loader at material source.												
00E2010 12 CY End Dump	GEN	U.C. per ea	8.00	ea	130	00E2010	0	\$32,708	0	0	0	\$32,708
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	130	00E2050	0	\$4,079	0	0	0	\$4,079
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	130	00E0912	0	\$8,563	0	0	0	\$8,563
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	130	00E0630	0	\$3,441	0	0	0	\$3,441
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	130	\$39.39	5120.7	\$0	0	0	0	\$5120.7
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <8600 GVW)	GEN	U.C. per ea	9.00	ea	1,170	\$37.47	4871.1	\$0	0	0	0	\$4871.1
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	130	\$35.21	4577.3	\$0	0	0	0	\$4577.3

Project Name: **WAG 3**
OU 3-14 R/F/S Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-2b**

DETAIL ITEM REPORT

Memo: **54,265 SF (per CWI Design Engt) = 1.25 Acres**
Tank Farm ET Cover South Perimeter Area (2015)

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty.</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	130 260	\$37.19 CN-SURV		4834.7 \$9,669	0 \$0	0 \$0	0 \$0	4834.7 \$9,669
"6" Topsoil with Gravel Admix South Perimeter Area	GEN	U.C. per ea	1.00	ea	0		0	0	0	0.01	0.01	\$0
Memo: Surface area ET cover south perimeter area = 54,204 SF (Cty from CWI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY = 1,004 CY. Import 3/4 of 6" lift (750 CY/10 CY/Load = 75 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (10 miles one way), 1/4 of 6" lift (250 CY) will be from pea gravel from town to borrow pile. For rye grass flats soil, 750 CY/10 CY/Load = 75 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 11 Days/Truck. 11 Days/Truck/4 Trucks = 3 Days. Equipment costs from Blue Book.												
00E0840 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	30 30	00E0940	0 \$0	1314.9 \$1,315	0 \$0	0 \$0	0 \$0	1314.9 \$1,315
Memo: Loader at material source.												
00E0210 12 cy End Dump	GEN	U.C. per ea	4.00	ea	120	00E2010	0 \$0	943.5 \$3,774	0 \$0	0 \$0	0 \$0	943.5 \$3,774
00E0250 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	30	00E2050	0 \$0	941.4 \$941	0 \$0	0 \$0	0 \$0	941.4 \$941
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	30	00E0912	0 \$0	1976.1 \$1,976	0 \$0	0 \$0	0 \$0	1976.1 \$1,976
Memo: Grader at material source.												
00E0630 Cat C-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	30	00E0630	0 \$0	794.1 \$794	0 \$0	0 \$0	0 \$0	794.1 \$794
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	30 90	\$39.39 CN-ENGR	1181.7 \$3,545	0 \$0	0 \$0	0 \$0	0 \$0	1181.7 \$3,545
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	5.00	ea	30 150	\$37.47 CN-TRHV	1124.7 \$5,621	0 \$0	0 \$0	0 \$0	0 \$0	1124.7 \$5,621
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	30 60	\$25.21 CN-LABR	1055.3 \$2,113	0 \$0	0 \$0	0 \$0	0 \$0	1055.3 \$2,113

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/S Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ETI Cover South Perimeter Area (2035)												
Memo:	54,205 SF (per CIV Design Engg) = 1.25 Acres											
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	30 60	\$37.19 CN-SURV	\$115.7 \$2,231	0 \$0	0 \$0	0 \$0	0 \$0	115.7 \$2,231
GEN		U.C. per CY						0 \$0	0 \$0	25 \$6,250		25 \$6,250
3/8" Pea Gravel Memo: 1/4 of 6' lift (250 CY) will be from pea gravel from town to borrow pile @ \$25/CY. Deliver 250 CY gravel from town, to borrow pile, 1/2 mile from job site. 250 CY/10 CY/Load = 25 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEI Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 25 Loads/24 Loads/Day/Truck = 1 Day/Truck. = 1 Day. Equipment costs from Bill Book.												
00E0840	GEN Cat 5054 cy Loader Memo: Loader at material source.	U.C. per ea	1.00	ea	10	00E0940	0 \$0	498.3 \$438	0 \$0	0 \$0	0 \$0	498.3 \$438
00E2010	12 cy End Dump	GEN	U.C. per ea	1.00	ea	10 10	00E2010 00E2050	0 \$0	314.5 \$315	0 \$0	0 \$0	314.5 \$315
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10 10	00E2050 00E0912	0 \$0	313.8 \$314	0 \$0	0 \$0	313.8 \$314
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10 10	00E0912 00E0630	0 \$0	668.7 \$659	0 \$0	0 \$0	668.7 \$659
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10 10	00E0630 00E0912	0 \$0	264.7 \$265	0 \$0	0 \$0	264.7 \$265
CN-ENGR	GEN OPERATING ENGINEER	U.C. per ea	3.00	ea	10 30	\$38.39 CN-ENGR	\$93.9 \$1,182	0 \$0	0 \$0	0 \$0	0 \$0	393.9 \$1,182
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY < \$600 GVW)	U.C. per ea	2.00	ea	10 20	\$37.47 CN-TRHV	\$74.7 \$749	0 \$0	0 \$0	0 \$0	0 \$0	374.7 \$749
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	10 20	\$35.27 CN-LABR	\$52.1 \$704	0 \$0	0 \$0	0 \$0	0 \$0	352.1 \$704
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	10 20	\$37.19 CN-SURV	\$71.9 \$744	0 \$0	0 \$0	0 \$0	0 \$0	371.9 \$744

DETAIL ITEM REPORT

Project Name: WAG 3
 OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-M-2b

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo:	54,205 SF (per CWI Design Engt) = 1.25 Acres											
	Reseeding South Perimeter Area	GEN	U.C. per ACRES	1.25	ACRES	0	\$0	\$0	\$0	\$0	3000	0
Memo:	54,204 SF (per CWI Design Engt) = 1.25 Acres											
	Subtotal						\$112,928	\$77,014	\$0	\$303,920	\$0	\$493,862
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$32,783	\$22,357	\$0	\$88,228	\$0	\$143,366
Subtotal Estimate												\$637,230
Escalation							\$29,142	\$19,874	\$0	\$78,430	\$0	\$127,446
Contingency												
— Total Tank Farm ET Cover South Perimeter Area (2036)			3,010				\$174,862	\$119,246	\$0	\$470,578	\$0	\$764,676

Project Management (Capital)

PM cost estimated at 5% of construction	CWI	U.C. per \$\$ 6,714,482.00	\$\$ 0	\$335,724	0.05	\$0	\$0	\$0	\$0	\$0	\$0	\$335,724
Subtotal						\$335,724	\$0	\$0	\$0	\$0	\$0	\$335,724
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$335,724
Escalation												
Contingency												
— Total Project Management (Capital)			0				\$335,724	\$0	\$0	\$0	\$0	\$335,724

Remedial Design/Remedial Action Work Plan

RA Work Plan cost estimated at 8% of construction	CWI	U.C. per \$\$ 6,714,482.00	\$\$ 0	\$537,159	0.08	\$0	\$0	\$0	\$0	\$0	\$0	\$537,159
Memo: Estimate assumes equipment design will be done by equipment manufacturers, for the track-hoe.												

DETAIL ITEM REPORT

Project Name:

**WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment**

Project Location: **INTEC Tank Farm**

Estimate Number: **2986-M-2b**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: Project Support

Remedial Design/Remedial Action Work Plan

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Subtotal												
Sales Tax				\$0	\$0				\$0	\$0	\$0	\$537,159
Overheads			0.00%	\$0	\$0				\$0	\$0	\$0	\$0
Subtotal Estimate												\$537,159
Escalation												
Contingency												
Total Remedial Design/Remedial Action Work Plan			0									\$537,159

Construction Management (Capital)

	CWI	U.C. per \$	\$	U.C. per \$	\$	0	0	0	0	0	0	0.06
CWI cost estimated at 6% of construction												
Subtotal												
Sales Tax												
Overheads												
Subtotal Estimate												
Escalation												
Contingency												
Total Construction Management (Capital)												

Extraction, Containment, or Treatment Systems

Memo: **Costs for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittal of reports to agencies. For basis, see estimate file # 2986-KC (Total cost per year is \$626,000/7 yrs (FY06-12)) = \$75,000 annual cost.**

Surface Water Controls	CWI	U.C. per LS	1.00	LS	0	0	\$0	0	0	0	75,000	\$75,000
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Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name:

**WAG 3
OU 3-14 RUFFS Alternative 2b: Institutional Controls, Monitoring and Containment**

Project Location: INTEC Tank Farm

Estimate Number: 2988-M-2b

Client: L. Cahn, 6-3080
Prepared By: J. Falter, 6-0322
Estimate Type: Project Support

Extraction, Containment, or Treatment Systems

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
Extraction, Containment, or Treatment Systems												
Memo: Costs for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittal of reports to agencies. For basis, see estimate file # 2988-K. (Total cost per year is \$826,000/7 yrs (FY04-12)) = \$75,000 annual cost.												
Subtotal			\$0		\$0	\$0	\$0	\$0	\$0	\$75,000	\$0	\$75,000
Sales Tax			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%									
Subtotal Estimate												
Escalation			\$0		\$0	\$0	\$0	\$0	\$0	\$11,250	\$0	\$11,250
Contingency			\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
- Total Extraction, Containment, or Treatment Systems												
			0		\$0	\$0	\$0	\$0	\$0	\$86,250	\$0	\$86,250

Project Management (O&M) (Annual)

Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource leveling, etc. Based on current/proposed crew makeup and determined duration periods.

E28	PROJECT MANAGEMENT	CWI	U.C. per hrs	10.00	hrs	12	\$74.02	\$668.24	\$0	0	0	\$866.24
Subtotal				120	E28			\$8,882	\$0	\$0	\$0	\$8,882
Sales Tax								\$0	\$0	\$0	\$0	\$0
Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
Escalation								\$0	\$0	\$0	\$0	\$0
Contingency								\$1,332	\$0	\$0	\$0	\$1,332
- Total Project Management (O&M) (Annual)												
			120			\$10,216			\$0	\$0	\$0	\$10,216

Project Management (\$M/M) (Annual)

Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource leveling, etc. Based on current/proposed crew makeup and determined duration periods.

E28	PROJECT MANAGEMENT	CWI	U.C. per months	12.00	months	10	\$74.02	740.2	\$0	0	0	740.2
Subtotal				120	E28			\$8,882	\$0	\$0	\$0	\$8,882
Sales Tax								\$0	\$0	\$0	\$0	\$0

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2986-M-2b**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Project Management (\$&M) (Annual)												
	Memo: Responsible for managing baseline schedule and budget, LCB mods, changes and updates, reporting, resource loading, etc. Based on current/proposed crew makeup and determined duration periods.											
	Subtotal				\$8,882	\$0	\$0	\$0	\$0	\$0	\$0	\$8,882
	Sales Tax:				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Overheads				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
	Escalation				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Contingency				\$1,332	\$0	\$0	\$0	\$0	\$0	\$0	\$1,332
	- Total Project Management (\$&M) (Annual)		120		\$10,215	\$0	\$0	\$0	\$0	\$0	\$0	\$10,215

Monitoring, Sampling, Testing, and Analysis (SAM) (2013.15.20.25....9.6)

Memo: **Includes radiaton surveys and environmental monitoring for CPP-96. For groundwater monitoring, group 5, estimate file # 8530-DWP2-11B and WBS P.4.C1.04.01, Routine GW monitoring LCB estimates are used as basis. AWMR 2013-2015 then every 5 years till 2025. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cahn email to J. Folker dated 09/12/2005.**

Memo: "Soil Monitoring"
A No Longer Contained in Determination will be approved for all INTEC groundwater and perched water.
The tank farm tanks will be clean closed.
The RI/BRA showed that there was no risk from the RCRA constituents in the soil. Therefore a RCRA cap, post closure permit, or RCRA groundwater monitoring program will not be required.

X12	CWI	U.C. per ea	1.00	ea	0	\$0	0	0	0	0	0	1866.4
			40	X12	47.41	\$1,886	0	0	0	0	0	\$1,886
U-60	CWI	U.C. per ea	1.00	ea	40	\$40.07	1622.8	0	0	0	0	1622.8
			40	U-60	1.603	\$0	\$0	\$0	\$0	\$0	\$0	\$1,603
	Groundwater Monitoring	CWI	U.C. per ea	1.00	ea	0	\$0	0	0	0	0	0.01
												\$0
	Annual Well Monitoring, Including Report	CWI	U.C. per ea	1.00	ea	0	\$0	30290	0	1453	0	31713
								\$30,290	\$0	\$1,453	\$0	\$31,713
	Prepare TOS, Work Planning & Mobilization	CWI	U.C. per LS	1.00	LS	40	\$53.67	2145.8	0	1453	0	3609.8
	Memo: Based on Group 5 DWP estimate file # 8530-DWP2-11B, escalated to 2006.			40	\$15	\$2,147	\$0	\$1,463	\$0	\$0	\$0	\$3,610

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DETAIL ITEM REPORT

Project Name: WAG 3
OU 3-14
Project Location: WTEC T
Estimate Number: 2966-M-H

SIMP Informational Bulletin (SIMP) (Annex B)

Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the INL CFCUP; update changes or terminations agreed to by the agencies. Incorporation of ORB comments. See WBS P.4.C1.03.02, Institutional Controls, estimate by R. Fitch. Once per year

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-W-2b**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Information Database [CFLUP] (Annual)												
<i>Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the INL</i>												
Memo:	<i>CFLUP; update changes or terminations agreed to by the agencies. Incorporation of ORB comments. See WBS P.4.C1.03.02, Institutional Controls, estimate by R. Fitch. Once per year through 2086. 1 year costs.</i>											
S05	GEOLOGY	CWI	U.C. per ea	1.00	ea	8	\$60.57	484.56	\$0	0	0	\$0
								\$485				484.56
Subtotal								\$2,835	\$0	\$117	\$0	\$0
Sales Tax								\$0	\$0	\$0	\$0	\$0
Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$2,972
Subtotal Estimate												\$2,972
Escalation								\$0	\$0	\$0	\$0	\$0
Contingency								\$428	\$0	\$18	\$0	\$0
Total Site Information Database [CFLUP] (Annual)								\$3,283	\$0	\$135	\$0	\$0
												\$3,418
Annual Institutional Control Inspection												
Memo:	<i>Annual inspection (Assessment). See WBS No. P.4.C1.03.02, ID # ERA432000010.</i>											
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	8	ea	8	\$47.41	379.28	\$0	0	0	\$0
								\$379				379.28
<i>Memo: For assessment</i>												
S05	GEOLOGY	CWI	U.C. per ea	1.00	ea	32	\$60.57	1936.24	\$0	0	0	\$0
								\$1,938				1936.24
Subtotal												\$1,938
Sales Tax												\$0
Overheads												\$0
Subtotal Estimate												\$1,938
Escalation												\$0
Contingency												\$348
Total Annual Institutional Control Inspection								\$348	\$0	\$0	\$0	\$0
												\$2,945

DETAIL ITEM REPORT

Project Name:

**WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment**

Project Location: INTEC Tank Farm

Estimate Number: 29884-M-2b

Client: L. Cahn, 6-3080
Prepared By: J. Folker, 6-0322
Estimate Type: Project Support

Code Description

Contractor

Qty UOM Hrs Resource Labor Equipment Material Subcontractor Other TOTAL

Project Management (IC) (Annual)

Memo: Responsible for managing baseline schedule and budget, LCB mode, changes and updates, reporting, resource loading, etc. Based on current/proposed crew makeup and determined duration periods.

E28	PROJECT MANAGEMENT	CWI	U.C. per hrs	10.00	hrs	12	\$74.02	888.24	0	0	\$0	0	0	888.24
				120	E28		\$8,882	\$0						\$8,882
Subtotal							\$8,882	\$0						\$8,882
Sales Tax							\$0	\$0						\$0
Overheads							\$0	\$0						\$0
Subtotal Estimate														\$8,882
Escalation							\$0	\$0						\$0
Contingency							\$1,332	\$0						\$1,332
Total Project Management (IC) (Annual)							120	\$10,216	\$0	\$0	\$0	\$0	\$0	\$10,216

Remedy Failure or Replacement (Annual)

Memo: Warning signs and physical barriers replacement (Annual costs) See Institutional Controls WBS No. P.4.C1.03.02.ID # ERM3200100, "Maintain Institutional Controls" for basis of estimate.

Per year costs.

U21	LABORER	CWI	U.C. per ea	1.00	ea	40	\$21.47	858.8	0	0	\$0	0	0	858.8
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	40	\$37.41	1596.4	0	0	\$0	0	0	1596.4

DETAIL ITEM REPORT

Project Name: **WAG 3**

OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment

Project Location: **INTEC Tank Farm**

Estimate Number: **2006-M-2b**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

Code Description

Contractor

<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
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Remedy Failure or Replacement (Annual)

Memo: **Warning signs and physical barriers replacement (Annual costs) See Institutional Controls WBS No. P-4.C1.03.02.ID # ERM3200100, "Maintain Institutional Controls" for basis of estimate.**
Per year costs.

NM80 OTHER - SERVICES	CWI	U.C. per Lot	NM80 1.00 Lot	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal				\$2,755	\$0	\$0	\$80	\$0	\$3,555
Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
Overheads				\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate									\$3,555
Escalation				\$0	\$0	\$0	\$0	\$0	\$0
Contingency				\$413	\$0	\$0	\$120	\$0	\$533
-Total Remedy Failure or Replacement (Annual)				\$0	\$0	\$0	\$920	\$0	\$4,088

Infiltration Barrier Maintenance

Memo: **Annual Maintenance of Barrier @ 3% of Construction Costs**

Memo: **Total replacement of barrier in approximately 30 years.**

NM80 OTHER - SERVICES	CWI	U.C. per \$	3,544,897.06	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal									
Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
Overheads				\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate									\$106,347
Escalation				\$0	\$0	\$0	\$0	\$0	\$0
Contingency				\$0	\$0	\$0	\$15,962	\$0	\$15,962
-Total Infiltration Barrier Maintenance				0	\$0	\$0	\$122,299	\$0	\$122,299

Five Year Review

Memo: **Establish guidelines, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013.....**

Assemble Data

CWI	U.C. per LS	1.00 LS	0	\$0	\$0	\$0	\$0	\$0	\$0
Assemble Data									

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number:**2066-M-2b**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Review												
	Memo: Establish guidelines, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013.....											
209	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	1.00	ea	\$4	\$72.73	\$109.32	0	0	0	\$6,109
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	LS	0	\$0	\$0	2398	0	0	\$2,398
	Prepare Draft	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	0.01	\$0
NRPF	ELECTRONIC PUBLICATIONS	CWI	U.C. per hrs	NRPF	hrs	0	\$0	0	36.17	0	0	\$181
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	NRPG	hrs	0	\$0	0	58.69	0	0	\$343
T08	ILLUSTRATOR/ARTIST	CWI	U.C. per ea	1.00	ea	4	\$26.51	145.04	0	0	0	\$1,643
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	315	\$47.41	14934.15	0	0	0	\$14,934
Z09	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	1.00	ea	73	\$72.73	5309.29	0	0	0	\$309.29
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	LS	0	\$0	\$0	0	0	0	\$0
NM80	OTHER-SERVICES	CWI	U.C. per LS	NM80	LS	0	\$0	\$0	6747	0	0	\$6,747
	Establish Team	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	0.01	\$0
Z09	SUPERVISOR, SCI/ENG FUNC	CWI	U.C. per ea	1.00	ea	\$4	\$72.73	3927.42	0	0	0	\$3,927

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment**
 Project Location: **INTEC Task Farm**
 Estimate Number: **2966-M-2b**

Client: **L. Cain, 6-3080**
 Prepared By: **J. Folter, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Reviews												
<i>Memo: Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013.....</i>												
NM60	CWI OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	1.00	LS	0	\$0	0	\$1,527	0	0
Subtotal	Sales Tax Overheads						\$30,426	\$0	\$14,496	\$155	\$0	\$45,077
Subtotal Estimate	Escalation Contingency						\$0	\$0	\$0	\$0	\$0	\$0
- Total Five Year Reviews							\$4,564	\$0	\$2,174	\$23	\$0	\$45,077
- Total Five Year Reviews							\$30	\$24,960	\$0	\$16,671	\$178	\$0
\$61,839												

Update Institutional Controls Plan [Annual]

Memo: *IC annual report-ORB review, incorporate agency commitments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WES P.A.C1.03.02 Institutions!*
X12 *ENVIRONMENTAL RESTORATION*
 Memo: For prep, tech edit, doc control.

NRPG *WRITER/EDITOR*
 Memo: For tech edit.
NRPR *RECORDS MANAGEMENT*
 Memo: For prep doc control.

S05 *GEOLOGY*
 Memo: ORB review

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 2b: Institutional Controls, Monitoring and Containment
Project Location: **INTEC Tank Farm**
Estimate Number: **29864-M-2b**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Update Institutional Controls Plan (Annual)</u>												
<u>Memo:</u> /IC annual report-ORB review, incorporate agency comments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WBS P.4.C1.03.02 Institutional Controls Estimate. ID # ERM3200045. 1 year costs. Please note that RA report is N/A.												
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	22	\$47.41	1043.02	\$0	\$0	\$0	\$1,043
	Memo:	Incorporate ORB, agency comments.				22 X12	\$1,043					
Subtotal							\$14,218	\$0	\$4,212	\$0	\$0	\$18,430
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
<u>Subtotal Estimate</u>												\$18,430
Escalation							\$0	\$0	\$0	\$0	\$0	
Contingency							\$2,133	\$0	\$632	\$0	\$0	\$2,764
...Total	Update Institutional Controls Plan (Annual)					298	\$16,350	\$0	\$4,844	\$0	\$0	\$21,194

Subtotal	OU 3-14 FS ALTERNATIVE 2b: INSTITUTIONAL CONTROLS,	\$2,216,514	\$393,659	\$22,087	\$4,281,738	\$115,000	\$7,029,037
Sales Tax	MONITORING & CONTAINMENT	\$0	\$0	\$0	\$0	\$0	\$0
Overheads		\$162,379	\$114,291	\$0	\$1,092,603	\$0	\$1,369,272
<u>Subtotal Estimate</u>							
Escalation							
Contingency							
Total	OU 3-14 FS ALTERNATIVE 2b: INSTITUTIONAL CONTROLS, MONITORING & CONTAINMENT	16,871	\$2,692,481	\$651,100	\$25,400	\$6,550,007	\$142,022

Summary Report

Project Name: **WAG 3
OU 3-14 RUFFS Alternative 3a: Institutional Controls, Monitoring, Source Removal!**
 Project Location: **INTEC Tank Farm**
 Project Number: **2866-M-3a**

ESTIMATE ELEMENT	Estimate Subtotal	Escalation	Contingency	TOTAL
Total Estimated Cost (TEC)	\$38,588,386	0.00%	53.44%	\$59,208,193
Total Cost	\$38,588,386	0.00%	53.44%	\$59,208,193
Rounded Total Cost	{Rounded to the nearest \$ 10000}			\$59,210,000

Type of Estimate:	Project Support	Remarks
Estimator:	J. Falken, G-0322	E/T Cap Over Soils in the Central Area in 2012
Checked By:		E/T Cap Over Soils in the South Perimeter Area in 2035
Approved By:		4' Excavation and Fill in the North Perimeter Area in 2012

Project Name:
Project Location:
Estimate Number:

Project Summary Report

AG 3
AU 3-14 RUFFS Alternative 3a: Institutional Controls, Monitoring, Source Removal

Project Location: INTEC Tank Farm
Estimate Number: 2006-44-32

Project Summary Report						
			WAG 3 OU 3-14 RUFFS Alternative 3a: Institutional Controls, Monitoring, Source Removal / INTEC Tank Farm			
			Estimate Number: 2066-M-3a			
Level	Group	Description	Capital Costs	Estimate Subtotal	Escalation	Total
		Construction Activities	\$32,084,294	\$0	\$0	\$32,084,294
		Mobilization/Demobilization	\$522,116	\$0	\$20,558,596	\$52,642,890
		Construction Equipment	\$0,000	\$0	\$15,772	\$55,772
		Submittals/Implementation Plans	\$462,116	\$0	\$190,098	\$672,214
		Operational Plans	\$149,660	\$0	\$59,011	\$208,671
		Develop MSA Plan	\$41,228	\$0	\$16,256	\$57,484
		Develop ORR POA & Imp. Plan	\$41,228	\$0	\$16,256	\$57,484
		Final Inspection Report	\$250,000	\$0	\$98,575	\$348,575
		Site Security Personnel	\$0	\$0	\$0	\$0
		Monitoring, Sampling, Testing, and Analysis (Capital)	\$0	\$0	\$0	\$0
		Remediation	\$31,502,178	\$0	\$20,352,728	\$51,914,904
		Surface Water Collection or Containment	\$324,639	\$0	\$113,624	\$348,263
		Drainage Ditches & Culverts	\$324,639	\$0	\$113,624	\$348,263
		Retaining Walls	\$593,538	\$0	\$207,738	\$801,276
		CPP-659 Retaining Wall	\$477,411	\$0	\$167,094	\$644,505
		Wave Box Extensions	\$116,127	\$0	\$40,644	\$156,771
		Soil Excavation/Clean Backfill	\$25,024,507	\$0	\$18,737,004	\$43,761,511
		North Perimeter Area Excavate/Backfill/Dispose (2012)	\$313,766	\$0	\$203,948	\$517,714
		CPP-31 Excavate/Backfill/Dispose (2012)	\$24,710,741	\$0	\$18,533,056	\$43,243,797
		Demolition and Removal	\$1,136,407	\$0	\$397,742	\$1,534,149
		D&D CPP-654 (2012)	\$700,525	\$0	\$245,184	\$945,709
		D&D CPP-659 (2012)	\$435,882	\$0	\$152,559	\$588,441
		Cap or Cover	\$4,483,086	\$0	\$896,617	\$5,379,703
		Infiltration Barrier (2012)	\$1,459,458	\$0	\$291,892	\$1,751,350

Project Name: **WAG 3**
OU 3-14 RUFFS Alternative 3e: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2965-M-3e**

Project Summary Report

Client: **L. Cahn, 6-3080**
Prepared By: **J. Falker, 6-0322**
Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		-Infiltration Barrier (2035)	\$99,998	\$0	\$20,000	20.00%	\$119,998
		-----Tank Farm ET Cover Central Zone (2012)	\$2,320,154	\$0	\$464,031	20.00%	\$2,784,185
		-----Tank Farm ET Cover South Perimeter Area (2035)	\$603,475	\$0	\$120,695	20.00%	\$724,170
		-Professional/Technical Services (Capital)	\$6,096,016	\$0	\$0	0.00%	\$6,096,016
		—Project Management (Capital)	\$1,404,218	\$0	\$0	0.00%	\$1,404,218
		—Remedial Design/Remedial Action Work Plan	\$2,586,744	\$0	\$0	0.00%	\$2,586,744
		—Construction Management (Capital)	\$1,925,058	\$0	\$0	0.00%	\$1,925,058
		Operational and Maintenance (O&M) Costs	\$234,667	\$0	\$35,200	15.00%	\$269,867
		-O&M Activities	\$83,882	\$0	\$12,582	15.00%	\$96,465
		---Extraction, Containment, or Treatment Systems	\$75,000	\$0	\$11,250	15.00%	\$86,250
		—Project Management (O&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,216
		-Surveillance and Monitoring (S&M)	\$136,612	\$0	\$20,492	15.00%	\$157,104
		—Project Management (S&M) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,216
		—Monitoring, Sampling, Testing, and Analysis (S&M) (2013, 15, 20, 26,..., 95)	\$127,730	\$0	\$19,159	15.00%	\$146,889
		-Institutional Controls (IC)	\$14,172	\$0	\$2,126	15.00%	\$16,298
		---Site Information Database (CFLUP) (Annual)	\$2,972	\$0	\$446	15.00%	\$3,418
		---Annual Institutional Control Inspection	\$2,318	\$0	\$348	15.00%	\$2,665
		---Project Management (IC) (Annual)	\$8,882	\$0	\$1,332	15.00%	\$10,216
		Periodic Costs	\$173,409	\$0	\$26,011	15.00%	\$199,421
		-Construction/O&M Activities (Periodic)	\$109,902	\$0	\$16,485	15.00%	\$126,387
		—Remedy Failure or Replacement (Annual)	\$3,658	\$0	\$633	15.00%	\$4,088
		—Infiltration Barrier Maintenance	\$106,347	\$0	\$16,952	15.00%	\$122,299
		-Professional/Technical Services (Periodic)	\$45,077	\$0	\$6,762	15.00%	\$51,839
		—Five Year Reviews	\$46,077	\$0	\$6,762	15.00%	\$51,839

Project Summary Report

Project Name: **WAG 3
OU 3-14 R/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2996-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-3322**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Group</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
		-Update Institutional Controls Plan (Annual)	\$18,430	\$0	\$2,764	15.00%	\$21,194
Total	OU 3-14 FS ALTERNATIVE 3a: INST CTRL, MONITORING, SOURCE REMOVAL & CONTAINMENT		\$38,588,386	\$0	\$20,619,807	53.44%	\$59,208,193

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Construction Equipment												
<i>Memo: Assume 20 pieces of equipment at \$1,000 each.</i>												
	GEN	U.C. per LS	1.00	LS	0	\$0	0	0	\$0	0	0	20000
Memo:	Mobilize Equipment for Cap											\$20,000
<i>Memo: Assume 20 pieces of equipment at \$1,000 each.</i>												
	GEN	U.C. per LS	1.00	LS	0	\$0	0	0	\$0	0	0	20000
Memo:	Demobilize Equipment for Cap											\$20,000
<i>Memo: Assume 20 pieces of equipment at \$1,000 each.</i>												
	Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$0	\$0	\$0	\$0	\$0	\$0	\$15,772
-- Total Construction Equipment						0	\$0	\$0	\$0	\$0	\$0	\$55,772

Operational Plans

Memo: Operational plans include TPR's, USA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, IH Exposure and Sampling Plans, Well Abandonment Plans, Handling/Transport/Dispose Plans, Site Security Plans, and Quality Control Plans.

CWI	U.C. per YR	1.00	IH	0	0	0	0	0	37673	0	0	37673
Operational & Layout plan (cost per year)												
<i>Memo: The operation and layout plan will be a annually produced external document that will be used as a basis for budget. This document will be reviewed through the ORB process prior to state, EPA, and DOE review.</i>												
CWI	U.C. per YR	0	0	0	0	0	0	0	6530	0	0	6530
Rad monitoring & control plan (cost per year)												
<i>Memo: The radiation monitoring and control plan will be a annually produced document that will utilize pre-existing Rad Con procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)</i>												
CWI	U.C. per YR	1.00	IH	0	0	0	0	0	\$6,530	0	0	\$6,530
IH exposure & sample plan (cost per year)												
<i>Memo: The industrial hygiene exposure and sampling plan will be a annually produced document that will utilize pre-existing IH procedures. Annual updates are assumed to require the same effort as the initial document. (cost from previous ISG estimate)</i>												

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: WAG 3
 OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2986-M-3a

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Operational Plans												
<i>Memo: Operational plans include TRP's, JSA's, Training Plans, Operation and Lay Out Plans, RAD Monitoring and Control Plans, IH Exposure and Sampling Plans, Well Abandonment Plans, Handling/Transport/Disposal Plans, Site Security Plans, and Quality Control Plans.</i>												
Training Plan	CWI		U.C. per LS	1.00	LS	0	\$0	\$0	0	\$0	\$0	\$0
Quality Control Plan	CWI		U.C. per LS	1.00	LS	0	\$0	\$0	0	\$0	\$0	\$0
Subtotal Sales Tax Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate Escalation Contingency							\$0	\$0	\$0	\$0	\$0	\$149,660
- Total Operational Plans							\$0	\$0	\$0	\$0	\$0	\$208,671
Develop MSA Plan												
<i>Memo: The MSA plan will be a annually produced document. The cost associated with this plan includes generation of the plan, project review of the plan, document finalization, and generation of a checklist (cost from previous ISG estimate).</i>												
MSA Plan	CWI		U.C. per LS	1.00	LS	0	\$0	\$0	0	\$0	\$0	\$41,228
Subtotal Sales Tax Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$41,228
Subtotal Estimate Escalation Contingency							\$0	\$0	\$0	\$0	\$0	\$41,228
- Total Develop MSA Plan							\$0	\$0	\$0	\$0	\$0	\$57,484

Develop MSA Plan

Memo: The MSA plan will be a annually produced document. The cost associated with this plan includes generation of the plan, project review of the plan, document finalization, and generation of a checklist (cost from previous ISG estimate).

MSA Plan	CWI		U.C. per LS	1.00	LS	0	\$0	\$0	0	\$0	\$0	\$41,228
Subtotal Sales Tax Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$41,228
Subtotal Estimate Escalation Contingency							\$0	\$0	\$0	\$0	\$0	\$41,228
- Total Develop MSA Plan							\$0	\$0	\$0	\$0	\$0	\$57,484

DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-14 R/F/S Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2966-W-3a

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

Code Description Contractor Cty UOM Hrs Resource Labor Equipment Material Subcontractor Other TOTAL

Develop ORR POA & Imp. Plan

Memo: The ORR Plan Of Action (POA) and the implementation plan's combined cost is assumed to equal the the MSA plan cost.

ORR POA & Imp plan	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	\$0	\$41,228	\$0	\$41,228
Subtotal						\$0	\$0	\$0	\$41,228	\$0	\$41,228
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0
Escalation						\$0	\$0	\$0	\$16,256	\$0	\$16,256
Contingency						\$0	\$0	\$0	\$0	\$0	\$0
-Total Develop ORR POA & Imp. Plan			0			\$0	\$0	\$0	\$67,484	\$0	\$67,484

Final Inspection Report

Memo: Cost allowance is based on the PERA for WAG 7 SDA (IWEEL/EXT-02-01258) Rev-0.

FINAL INSPECTION REPORT	CWI	U.C. per LS	1.00	LS	0	\$250,000	\$0	\$0	\$0	\$0	\$250,000
Subtotal						\$250,000	\$0	\$0	\$0	\$0	\$250,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0
Escalation						\$98,575	\$0	\$0	\$0	\$0	\$98,575
Contingency						\$0	\$0	\$0	\$0	\$0	\$0
-Total Final Inspection Report			0			\$348,575	\$0	\$0	\$0	\$0	\$348,575

Site Security Personnel

Memo: It is assumed that INL will maintain security personnel required for construction activities.

Security Support @ Site Access Gate	CWI	U.C. per YR	1.00	YR	0	\$0	\$0	\$0	\$0	\$0	\$0
-Total											

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: **WAG³**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2866-M-3a**

Client: **L. Cain, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Security Personnel												
Memo: It is assumed that RNL will maintain security personnel required for construction activities.												
	Subtotal Sales Tax Overheads					\$0	\$0	\$0	\$0	\$0	\$0	\$0
						\$0	\$0	\$0	\$0	\$0	\$0	\$0
						\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$0
	Escalation Contingency					\$0	\$0	\$0	\$0	\$0	\$0	\$0
	-- Total Site Security Personnel					0	\$0	\$0	\$0	\$0	\$0	\$0

Monitoring, Sampling, Testing, and Analysis (Capital)

		<u>U.C. per LS</u>										
Memo:	Monitoring, Sampling, Testing and Analysis											
Memo:	Analytical laboratory capital equipment costs will be paid for by RAL											
	1.00 LS											
	0											
	Subtotal Sales Tax Overheads					\$0	\$0	\$0	\$0	\$0	\$0	\$0
						\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$0
	Escalation Contingency					\$0	\$0	\$0	\$0	\$0	\$0	\$0
	-- Total Monitoring, Sampling, Testing, and Analysis					0	\$0	\$0	\$0	\$0	\$0	\$0
	(Capital)											

Drainage Ditches & Culverts

<u>Drainage Ditches</u>	<u>GEN</u>	<u>U.C. per LF</u>	<u>3,000.00 LF</u>	<u>0</u>	<u>0</u>	<u>\$208.00</u>	<u>69.4</u>	<u>0</u>	<u>\$208.00</u>	<u>69.4</u>
Memo:	Per estimate file # 2856-E, 236 CY concrete @ 700 LF = 1,638 CY/LF x \$600/LF = \$99,400.									

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
Page No. 4

DETAIL ITEM REPORT

Project Name: **WAG 3**

OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal

Project Location: **INTEC Tank Farm**

Estimate Number: **2906-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Drainage Ditches & Culverts												
			GEN	U.C. per LF	1,000.00	LF	0	0	0	43.4	0	\$43,400
	Culverts				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,400
	Memo: Per estimate file # 2906-E (FY-2000), 30' CMP @ \$40/LF installed directs. Escalated 9.06% = \$43.40 directs											
	Subtotal				\$0	\$0	\$0	\$0	\$251,600	\$0	\$251,600	
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Overheads				\$0	\$0	\$0	\$0	\$73,039	\$0	\$73,039	
	Subtotal Estimate				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$324,639
	Escalation				\$0	\$0	\$0	\$0	\$113,624	\$0	\$113,624	
	Contingency											
	Total Drainage Ditches & Culverts				0	\$0	\$0	\$0	\$438,263	\$0	\$438,263	

CPP-659 Retaining Wall

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
			GEN	U.C. per	370.00	0	0	0	0	1000	0	\$370,000
	20 ft High Retaining Wall Around North & West Sides of CPP-659				\$0	\$0	\$0	\$0	\$370,000	\$0	\$370,000	
	Memo: Assume 20' high x 500' x 1' ft thick = 370 CY @ \$1,000/CY directs											
	Subtotal				\$0	\$0	\$0	\$0	\$370,000	\$0	\$370,000	
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Overheads				\$0	\$0	\$0	\$0	\$107,411	\$0	\$107,411	
	Subtotal Estimate				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$477,411
	Escalation				\$0	\$0	\$0	\$0	\$167,094	\$0	\$167,094	
	Contingency											
	Total CPP-659 Retaining Wall				0	\$0	\$0	\$0	\$644,505	\$0	\$644,505	

Valve Box Extensions

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
			GEN	U.C. per	90.00	0	0	0	0	1000	0	\$90,000
	Valve Box Extensions @ 10 ft each				\$0	\$0	\$0	\$0	\$90,000	\$0	\$90,000	
	Memo: Assume 6 each @ 10' high x 40' x 1' ft thick = 15 CY @ \$1,000/CY directs											
	Total Valve Box Extensions				0	\$0	\$0	\$0	\$0	\$0	\$0	\$90,000

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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Project Name:

DETAIL ITEM REPORT

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3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal

Project Location: INTEC Tank Farm

Estimate Number: 2866-4

Description		Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	Total
Valve Box Extensions												
Subtotal			\$0		\$0		\$0	\$0	\$0		\$0	\$0
Sales Tax			\$0		\$0		\$0	\$0	\$0		\$0	\$0
Overheads			\$0		\$0		\$0	\$26,127	\$0		\$26,127	
Subtotal Estimate			\$0		\$0		\$0	\$0	\$0		\$0	\$116,127
Escalation			\$0		\$0		\$0	\$40,644	\$0		\$0	\$40,644
Contingency												
Total Valve Box Extensions			0		\$0		\$0	\$166,771	\$0			\$166,771

North Perimeter Area Excavate Backfill Dispose (2012)

Memo: North perimeter area = 22,276 SF (from OU 3-14 FS Map, dated 3/15/00). 22,276 x 4 ft deep excavation = 89,104 CF. 89,104 CF/27 CF/CY = 3,300 CY.

Excavation GEN U.C. per LS 1.00 LS 0 \$0 0 0 \$0 0.01 \$0
Memo: Assume 0 CY/min. cycle time to excavate, swing, walk, load into Stoller rolloffs, return. 50 min hour x 7 hr day. $350 \text{ min} \times 0.5 \text{ CY/min} = 175 \text{ CY/day}$. $3,300 \text{ CY}/175 \text{ CY/Day} = 20 \text{ Days}$. This cycle time accounts for

Car 3603 by Rob

EQUIPMENT OPERATOR LIGHT EQUIP GROUP 4 (C-1) 1.00 88 200 CINEQUIL

CNTRHV	GEN	U.C. per ea	U.C. per doz.	U.C. per case
200	\$17.47	\$749.00	\$749.00	\$749.00
200	\$17.47	\$749.00	\$749.00	\$749.00
200	\$17.47	\$749.00	\$749.00	\$749.00
200	\$17.47	\$749.00	\$749.00	\$749.00

LABORER \$14.00⁰⁰

Memorandum From DWP 5/1/2005 - 9/30/2005, Team Stoller-INEL CERCLA Disposal Facility, INTEC transportation costs. 1.73 tons/CY negotiated factor.

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: WAG 3
 OU 3-14 RUEFS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2986-44-3a

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
North Perimeter Area Excavate/Backfill/Dispose (2012)												
Memo: North perimeter area = 22,278 SF (from OU 3-14 FS Map, dated 3/15/06). 22,278 x 4 ft deep excavation = 88,104 CF. \$9,104 CF/27 CF/CY = 3,300 CY.												
00E0940	GEN	U.C. per ea	1.00	ea	130	00E0940	0	\$5,697.9	0	0	0	0.01
	Cat 950 4 cy Loader							\$5,698	\$0	\$0	\$0	\$5,698
Memo:	Loader at material source.											
00E0910	GEN	U.C. per ea	4.00	ea	520	00E2010	0	\$4,088.5	0	0	0	4088.5
	12 cy End Dump							\$16,354	\$0	\$0	\$0	\$16,354
00E0950	GEN	U.C. per ea	1.00	ea	130	00E2050	0	\$4,079.4	0	0	0	4079.4
	4000 gal Water Truck							\$4,079	\$0	\$0	\$0	\$4,079
00E0912	GEN	U.C. per ea	1.00	ea	130	00E0912	0	\$8,563.1	0	0	0	8563.1
	Cat 14 Grader							\$8,563	\$0	\$0	\$0	\$8,563
00E0930	GEN	U.C. per ea	1.00	ea	130	00E0930	0	\$3,441.1	0	0	0	3441.1
	Cat C-433 Vib Smooth Drum Compactor							\$3,441	\$0	\$0	\$0	\$3,441
CN-ENGR	OPERATING ENGINEER	U.C. per ea	3.00	ea	390	CN-ENGR	\$15,362	\$0	0	0	0	5120.7
CN-TRHV	GEN	U.C. per ea	1.50	ea	650	CN-TRHV	\$24,356	\$0	0	0	0	4871.1
TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)												
CN-LABR	GEN	U.C. per ea	2.00	ea	130	\$35.21	\$4577.9	\$0	0	0	0	4577.3
	LABORER							\$9,155	\$0	\$0	\$0	\$9,155
CN-SURV	GEN	U.C. per ea	2.00	ea	130	\$37.19	\$4834.7	\$0	0	0	0	4834.7
SURVEYOR INSTRUMENT MAN (GROUP 5)												
	Reseeding	GEN	U.C. per ACRES	0.50	ACRES	0	\$0	\$0	0	3000	0	3000
								\$1,500	\$0	\$0	\$1,500	

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2906-M-3a**

Client: **L. Cahn, 6-3080
Prepared By: J. Foltier, 6-0322
Estimate Type: Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
North Perimeter Area Excavate/Backfill/Dispose (2012)												
Memo: North perimeter area = 22,276 SF (from OU 3-14 FS Map, dated 3/15/08). 22,276 x 4 ft deep excavation = 89,104 CF. \$8,104 CF/27 CF/CY = 3,300 CY.												
CWI	Characterization of North Perimeter		1.00	LS	0	\$0	0	\$0	0	\$15,000	0	\$15,000
Memo:	Assume cores would be collected on a random grid from the north perimeter area at 10 locations to a depth of 4-ft analyzed for Cs-137 at RESL. If more than 50% exceeded the PRG we would do no more characterization and would assume all of the soil was contaminated at concentrations above the PRG and would dig all of it up for disposal at ICF.											
	Assume cores would be analyzed in two-ft increments. Under this assumption sampling and analysis for 20 soil samples for Cs-137 will be done. Direct-push rig and split-spoons will be used.											
	\$5,000 for analytical services, validation, adders, and SAM services, for 20 samples. For retrieving samples, 2 person crew and equipment @ \$250/hr for 1 week. Total = \$5K + \$10K = \$15K.											
Subtotal						\$87,760	\$71,496	\$0	\$107,844	\$0	\$0	\$267,099
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads						\$25,417	\$20,755	\$0	\$435	\$0	\$0	\$46,567
Subtotal Estimate												\$313,766
Escalation												
Contingency												
- Total North Perimeter Area Excavate/Backfill/Dispose (2012)			2,360			\$186,840	\$162,214	\$0	\$178,981	\$0	\$0	\$517,714
CPP-31 Excavate/Backfill/Dispose (2012)												
Memo: See also FS, section 4.4.3.1. 17625 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.												
CWI	"Procurement"		1.00	LS	0	\$0	0	\$0	0	\$0	0	\$0
Memo:	See estimate file # 5989-Q, WAG 7, for basis.											
CWI	Retrieval Structure Structural Steel		U.C. per SF	43,750.00	SF (50 feet beyond excavation)	0	\$0	\$0	\$1,556,625	\$0	\$0	\$1,556,625
Memo:	See estimate file # 5989-D. Structure is assumed to be 250 x 175 feet. This estimate is based on actual purchase contract from the first 6 bay retrieval building purchased/leased of the same size and design.											
Airlock Structures			U.C. per SF	12,250.00	SF	0	\$0	\$0	44,51	0	0	44,51
Emissions Monitoring & Stack			U.C. per LS	1.00	LS	0	\$0	\$0	\$213,000	0	0	\$213,000
HVAC			U.C. per SF	43,750.00	SF	0	\$0	\$0	7,53	0	0	7,53
									\$329,438	\$0	\$0	\$329,438
Material Costs where applicable include Idaho State Sales Tax												
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
CPP-31 Excavator Backfill/Dispose (2012)												
<i>Memo: See also FS, section 4.4.3.1. 17625 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.</i>												
Electrical Distribution	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$365415	0	\$0	0	\$365415
Video CCTV	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$120,400	0	\$0	0	\$120,400
Rad Con Equipment	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$628,000	0	\$0	0	\$628,000
Fire Detection and Alarm	CWI	U.C. per SF	43,750.00	SF	0	\$0	0	\$154,000	0	\$0	0	\$154,000
Telehandler	CWI	U.C. per ea	1.00	ea	0	\$0	0	\$370,000	0	\$0	0	\$370,000
Foundation Materials	CWI	U.C. per LF	950.00	LF	0	\$0	0	\$204,000	0	\$0	0	\$204,000
Support Trailers	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$90,000	0	\$0	0	\$90,000
Power Generator	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$44,000	0	\$0	0	\$44,000
Remote Excavator	CWI	U.C. per ea	2.00	ea	0	\$0	0	\$829100	0	\$0	0	\$829100
<i>Memo: Assume 2 excavators cannot be decontaminated, so they will have to be procured. Costs from estimate file # 5989-D, WAG 7. Costs include robotics.</i>												
Shoring	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$50,000	0	\$0	0	\$50,000
Conveyor	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$75,000	0	\$0	0	\$75,000
Waste Boxes	CWI	U.C. per ea	3,500.00	ea	0	\$0	0	\$3,731,000	0	\$0	0	\$3,731,000
<i>Memo: Excavate to 25 ft BGS in boxes. (10500 CY). Waste box 7A Type A CS Box, Bull Run Model CC-91, 90 CF. (30CY). 10500 CY / 30 CY/Box = 3500 Boxes.</i>												

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/F Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2980-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
CPP-31 Excavate/Becklin/Disse (2012)												
Memo: See also FS, section 4.4.3.1. 17825 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.												
Soil Stacks	CWI	U.C. per cu ft	792.00	ea	0	\$0	\$0	\$0	\$396,000	\$0	\$0	\$396,000
Memo:	17,825 CY (Total) -10,500 CY (1st 25 feet Excavation) = 7,125 CY, in burrito bags transported by rolloffs to ICDF. Each bag = 9 CY. 7,125 CY/9 CY/Bag = 792 Bags.											
PPE Allowance	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	\$418,600	\$0	\$0	\$418,600
Memo:	PPE allowance assumes 20 entries/day x 322 working days @ \$65.00/ entry.											
Construction of Retrieval Structure*	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	\$0	\$0	0.01	\$0
Memo:	See estimate file # 5989-D, WAG 7, for basis.											
Facility Erection	CWI	U.C. per SF	43,750.00	SF	0	\$0	0	0	\$1,235,063	\$0	0	\$1,235,063
Airlock Erection	CWI	U.C. per SF	12,250.00	SF	0	\$0	0	0	\$488,653	\$0	0	\$488,653
Site Work	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	\$32,000	\$0	0	\$32,000
Fire Detection and Alarm	CWI	U.C. per SF	43,750.00	SF	0	\$0	0	0	\$61,250	\$0	0	\$61,250
Facility Mechanical	CWI	U.C. per SF	43,750.00	SF	0	\$0	0	0	\$632,000	\$0	0	\$632,000
Facility Electrical	CWI	U.C. per SF	43,750.00	SF	0	\$0	0	0	\$589,625	\$0	0	\$589,625
Airlock Mechanical, Electrical and Interior Walls	CWI	U.C. per SF	12,250.00	SF	0	\$0	0	0	\$1,144,028	\$0	0	\$1,144,028
Electrical Distribution	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	\$585,000	\$0	0	\$585,000

DETAIL ITEM REPORT

Project Name: **WAG 3²**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number:**2998-M-3s**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
CPP-31 Excavation/Backfill/Dispose [2012]												
Memo: See also FS, section 4.4.3.1. 17625 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.												
A13	RECORDS MANAGEMENT/DOC CONTROL	CWI	U.C. per \$	4,717,619.00	\$	0	\$0	0	\$0	\$235,881	\$0	\$235,881
A14	SECRETARIAL	CWI	U.C. per FTE	1.00	FTE	3,220 A13	\$21.66 \$70,395	0	0	\$0	\$0	\$0
E17	QUALITY ENGINEERING	CWI	U.C. per FTE	1.00	FTE	4,830 A14	\$23.51 \$113,553	0	0	\$0	\$0	\$0
E18	RADIOLOGICAL ENGINEERING	CWI	U.C. per FTE	1.00	FTE	3,220 E17	\$55.86 \$179,888	0	0	\$0	\$0	\$113,553
E19	SAFETY ENGINEERING	CWI	U.C. per FTE	1.00	FTE	3,220 E18	\$54.16 \$172,592	0	0	\$0	\$0	\$172,592
E41	FIRE PROTECTION	CWI	U.C. per FTE	1.00	FTE	3,220 E41	\$61.36 \$197,579	0	0	\$0	\$0	\$197,579
F10	WORK PLANNING AND/OR SCHEDULING	CWI	U.C. per FTE	1.00	FTE	3,220 F10	\$41.59 \$133,920	0	0	\$0	\$0	\$133,920
P19	RECORDS MANAGEMENT/DOC CONTROL	CWI	U.C. per FTE	2.00	FTE	6,440 P19	\$33.42 \$215,225	0	0	\$0	\$0	\$215,225
P23	TRAINING	CWI	U.C. per FTE	2.00	FTE	6,440 P23	\$43.96 \$283,102	0	0	\$0	\$0	\$283,102

Memo:

Retrieval See also FS, section 4.4.3.1. 17625 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.

Memo: A detailed, quantifiable, bottoms-up technique was utilized to apply the labor and supervision costs to perform the activities. Input from the project team included crew make-up, durations, Productivity rate = 6 CY/hr x 10 hr/day x 2 shifts/day = 120 CY/day. For 25 feet to bottom, Productivity rate = 2 CY/hr x 10 hr/day x 2 shifts/day = 7,125 CY/120 CY/day = 60 days. Total duration = 262 + 60 = 322 days.

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2066-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-3322**
 Estimate Type: **Project Support**

Code Description Contractor Qty UOM Hrs Resource Labor Equipment Material Subcontractor Other TOTAL

CPP-31 Excavate/Backfill/Dispose (2012)

Memo: See also FS, section 4.4.3.1. 17025 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.

S08	INDUSTRIAL HYGIENE	CWI	U.C. per FTE	1.00 FTE	3,220 \$0.84	\$163,705	0	0	\$0	0	\$163,705
S21	REGULATORY COMPLIANCE - ENVIRONMENTAL	CWI	U.C. per FTE	1.00 FTE	3,220 \$61.64	\$198,481	0	0	\$0	0	\$198,481
U21	LABORER	CWI	U.C. per FTE	15.00 FTE	3220 \$21.47	\$1,037,001	0	0	\$0	0	\$1,037,001
U60	RADIOLOGICAL CONTROL TECH	CWI	U.C. per FTE	6.00 FTE	3220 \$39.13	\$125,906	0	0	\$0	0	\$125,906
U73	WASTE OPERATIONS TECH	CWI	U.C. per FTE	15.00 FTE	3220 \$34.70	\$1,117,34	0	0	\$0	0	\$1,117,34
X16	WASTE MANAGEMENT	CWI	U.C. per FTE	1.00 FTE	3,220 \$53.70	\$172,914	0	0	\$0	0	\$172,914
X22	SAFETY ANALYSIS	CWI	U.C. per FTE	1.00 FTE	3,220 \$64.64	\$208,141	0	0	\$0	0	\$208,141
Z03	MANAGER, OPERATIONS	CWI	U.C. per FTE	1.00 FTE	3220 \$75.08	\$241,758	0	0	\$0	0	\$241,758
Z07	SUPERVISOR, FAC SUPPORT SERVICES	CWI	U.C. per FTE	1.00 FTE	3220 \$50.79	\$163,544	0	0	\$0	0	\$163,544
Z10	FOREMAN, OPERATIONS	CWI	U.C. per FTE	1.00 FTE	3,220 \$43.33	\$139,522	0	0	\$0	0	\$139,522
U83	CONSTRUCTION EQUIPMENT OPERATOR (FORCE ACCT)	CWI	U.C. per FTE	2.00 FTE	3220 \$38.16	\$116,435	0	0	\$0	0	\$116,435
	Shift Differential	CWI	U.C. per \$	3,246.355	\$ 0	\$324,636	0.1	0	\$0	0	\$324,636

Memo: Total labor = \$6,492,710/2 = \$3,246,355 (back shift). 10% shift differential for back shift.

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2906-M-3a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

Code Description Contractor Qty UOM Hrs Resource Labor Equipment Material Subcontractor Other TOTAL

Memo: See also FS, section 4.4.3.1. 17825 CY. Assume 75% of soils (13,220 CY) to be remotely excavated in a negative pressure environment.

CPP-31 Excavate/Backfill/Dispose (2012)											
"Demolition and Removal"	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	0	0.01
											\$0
DD&D Facilities @25% of Construction Costs	CWI	U.C. per \$	4,717,619.00	\$	0	\$0	\$0	0	0.25	0	\$1,179,405
"On Site Disposal"	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	0.01	0.01
											\$0
U77 CONSTRUCTION TEAMSTER (FORCE ACCT)	CWI	U.C. per FTE	1.00	FTE	3,220	\$32.15	\$103,523	0	0	0	103,523
U84 CONSTRUCTION LABORER (FORCE ACCT)	CWI	U.C. per FTE	1.00	FTE	3,220	\$31.36	\$100,979	0	0	0	\$100,979
00E1921 40 ft Roll-off Trailer w/Tractor	CWI	U.C. per EA	1.00	EA	3,220	00E1921	\$0	186,384.4	0	0	186,384.4
"Fill"	GEN	U.C. per LS	1.00	LS	0	\$0	\$0	0	0	0	\$0
Memo: Import 19,178 CY material from Rye Grass Flats (10 miles one way). loads/day/truck. 1918 Loads/7 Loads/Truck = 274 Days/Truck.											
00E0940 GEN	GEN	U.C. per ea	1.00	ea	350	00E0940	\$0	15340.5	0	0	15340.5
Memo: Cat 950 4 cy Loader Loader at material source.											
00E2010 12 cy End Dump	GEN	U.C. per ea	6.00	ea	350	00E2010	\$0	11097.5	0	0	11097.5
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	350	00E2050	\$0	10983	0	0	10983
00E0960 Cat D4 Dozer	GEN	U.C. per ea	1.00	ea	350	00E0960	\$0	12873	0	0	12873
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	350	00E0630	\$0	9264.5	0	0	9264.5

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **HITEC Tank Farm**
Estimate Number: **2866-M-3#**

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
CPP-31 Excavate/Backfill/Dispose (2012)												
<i>Memo: See also FS, section 4.4.3.1. 17625 CY. Assume 75% of soils (15,220 CY) to be remotely excavated in a negative pressure environment.</i>												
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	1,050	CN-ENGR	\$41,360	\$0	\$0	\$0	\$0	\$41,360
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <3600GvwW)	GEN	U.C. per ea	7.00	ea	2,450	CN-TRHV	\$91,802	\$0	\$0	\$0	\$0	\$91,802
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	700	CN-LABR	\$24,647	\$0	\$0	\$0	\$0	\$24,647
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	700	CN-SURV	\$26,033	\$0	\$0	\$0	\$0	\$26,033
Reseeding	GEN	U.C. per ACRES	1.00	ACRES	0		\$0	\$0	\$0	\$3,000	\$0	\$3,000
Subtotal						\$7,243.541	\$284,890	\$10,948.925	\$6,135,903	\$0	\$0	\$24,623,260
Sales Tax Overheads	0.36%					\$53,389	\$33,241	\$0	\$0	\$871	\$0	\$87,481
Subtotal Estimate												
Escalation Contingency						\$5,472,583	\$246,099	\$6,211,654	\$4,602,581	\$0	\$0	\$18,533,056
Total CPP-31 Excavate/Backfill/Dispose (2012)			193,270			\$12,769,593	\$674,230	\$18,160,819	\$10,739,356	\$0	\$0	\$43,243,797

D&D CPP-654 (2012)

D&D CPP-654	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	\$0	\$0	\$0	\$0	\$700,525
<i>Memo: Refer to Intrepid D&D model, 2003, for 18,000 SF CPP-654. Escalation (2003 to 2006) factor = 9.06%</i>												

DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-14 RUFFS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 29854-M-3a

Client: L. Cain, 6-3080
 Prepared By: J. Folter, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
D&D CPP-654 (2012)												
Subtotal			\$0		\$0		\$0		\$0		\$0	\$700,525
Sales Tax			\$0		\$0		\$0		\$0		\$0	\$0
Overheads			\$0		\$0		\$0		\$0		\$0	\$0
Subtotal Estimate												\$700,525
Escalation			\$0		\$0		\$0		\$0		\$0	\$0
Contingency			\$0		\$0		\$0		\$0		\$0	\$245,164
Total D&D CPP-654 (2012)			0		\$0		\$0		\$0		\$0	\$945,789

D&D CPP-659 (2012)

D&D CPP-659	CWI	U.C. per LS	0	\$0	0	\$0	0	\$0	0	\$0	\$435,882	\$435,882
Memo: Refer to Intrepid D&D model, 2003, for 11,200 SF CPP-659. Escalation (2003 to 2008) factor = 9.08%												
Subtotal			\$0		\$0		\$0		\$0		\$0	\$435,882
Sales Tax			\$0		\$0		\$0		\$0		\$0	\$0
Overheads			\$0		\$0		\$0		\$0		\$0	\$0
Subtotal Estimate												\$435,882
Escalation			\$0		\$0		\$0		\$0		\$0	\$0
Contingency			\$0		\$0		\$0		\$0		\$0	\$152,559
Total D&D CPP-659 (2012)			0		\$0		\$0		\$0		\$0	\$588,441

Infiltration Barrier 2012

Grading and Preparation	GEN	U.C. per LS	1.00	LS	0	\$0	0	\$0	100,000	0	0	100,000
Low Permeability Asphalt Cap for Infiltration Barrier-North Perimeter Area	GEN	U.C. per ACRES	0.51	ACRES	0	\$0	0	\$0	210,000	0	0	210,000
Memo: Per "Matco" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. North perimeter area = 22.276 SF = 0.51 acres												

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Infiltration Barrier 2012:												
	GEN			U.C. per ACRES								
	Low Permeability Asphalt Cap for Infiltration Barrier-South Perimeter Area		0.90	ACRES	0		\$0	0	\$0	\$0	0	\$21,000
	Memo: Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. South perimeter area = 39.181 SF = 0.90 acres											\$189,000
	GEN			U.C. per ACRES								
	Low Permeability Asphalt Cap for Infiltration Barrier-PRCZ Area		3.50	ACRES	0		\$0	0	\$0	\$0	0	\$735,000
	Memo: Per "Matcon" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. PRCZ Perimeter= 151.853 SF = 3.5 acres											\$735,000
	Subtotal						\$0	\$0	\$0	\$1,131,100	\$0	\$1,131,100
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	Overheads						\$0	\$0	\$0	\$328,358	\$0	\$328,358
	Subtotal Estimate											\$1,459,458
	Escalation											
	Contingency											
	- Total Infiltration Barrier 2012:		0				\$0	\$0	\$0	\$1,751,350	\$0	\$1,751,350
Infiltration Barrier 2035:												
	GEN			U.C. per LS								
	Grading and Preparation		1.00	LS	0		\$0	0	\$0	\$25,000	0	\$25,000

DETAIL ITEM REPORT

Project Name: WAG³
OU-3-14 R/WFS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2988-M-3a

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Infiltration Barrier (2036)												
	Low Permeability Asphalt Cap for Infiltration Barrier-CPP-15	GEN	0.25	ACRES	0			\$0	\$0	\$0	0	210000
Memo:	Per "Matco" verbal quote on March 1, 2005, from R. Garrett, installed cost for 4" thick membrane at non-DOE site is \$140,000/acre. 50% INL factor added results in \$210,000/acre. North perimeter area = 22.276 SF = 0.51 acres								\$52,500	\$0	0	\$62,500
Subtotal								\$0	\$0	\$0	\$0	\$77,500
Sales Tax:								\$0	\$0	\$0	\$0	\$0
Overheads			29.03%					\$0	\$0	\$22,498	\$0	\$22,498
Subtotal Estimate												\$99,998
Escalation Contingency												
Total Infiltration Barrier (2036)			0					\$0	\$0	\$20,000	\$0	\$20,000
												\$119,998

Tank Farm ET Cover-Central Zone (2012)

	Grading Fill-Central Area	GEN	U.C. per CY	18.37200 CY	0	\$0	\$0	0	\$0	\$734,880	40	0	\$734,880
Memo:	Assume fill material is available within 1 mile of job site. Quantity from CWI Design Engineering.												
	"6" Gravel Layer-Central Area*	GEN	U.C. per ea	1.00 ea	0	\$0	\$0	0	\$0	0	0.01	0	\$0
Memo:	Surface area ET cover central area = 177,216 SF (Qty from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY/CY = 3283 CY.												
	Pea Gravel	GEN	U.C. per CY	3.28300 CY	0	\$0	\$0	0	\$0	\$82,075	25	0	\$82,075
Memo:	Pea gravel material cost delivered (local vendor quote). Deliver 6" (3.283 CY) gravel from town, to borrow pile, 1/2 mile from job site. 3,280 CY/10 CY/Load = 328 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 328 Loads/24 Loads/Day/Truck = 14 Days/Truck. 14 Days/Truck/4 Trucks = 4 Days. Equipment costs from Blue Book.												
00E0940	Cat 950 4 cy Loader	GEN	U.C. per ea	1.00 ea	40	00E0940	\$0	\$1,753	0	\$0	25	0	\$1,753
Memo:	Loader at material source.												
00E2010	12 cy End Dump	GEN	U.C. per ee	4.00 ea	160	00E2010	\$0	\$5,032	0	\$0	0	0	\$5,032

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal!**

Project Location: **INTEC Tank Farm**

Estimate Number: **2966-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	40	00E2050	\$0	1255.2	0	0	0
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	40	00E0912	\$0	2634.8	0	0	2634.8
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	40	00E0630	\$0	1058.6	0	0	1058.6
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	120	CN-ENGR	\$4,727	0	0	0	4,727
CN-TRHV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	5.00	ea	200	CN-TRHV	\$7,494	0	0	0	7,494
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	40	335.21	\$2,817	1487.4	0	0	1487.4
CN-SURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	40	337.19	\$2,975	1487.6	0	0	1487.6
"1'-0" Cobble Layer-Central Area*		GEN	U.C. per ea	1.00	ea	0	CY from CWI Design Engineering).	Volume = 177.216 x 1.0 = 177.216 CY/27 CF/27 CY = 6564 CY.	\$0	0	0.01	\$0
Memo: Surface area ET cover central area = 177.216 SF (CY from CWI Design Engineering).												
Cobble Stone-Central Area		GEN	U.C. per CY	6,564.00	CY	0		\$0	0	0	0	0
Memo: Cobble stone material cost delivered (local vendor quote). Delivery 6,564 CY cobble from town, to borrow pile, 1/2 mile from job site. 6,564 CY/10 CY/Load = 656 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. (NEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 656 Loads/24 Loads/Day/Truck = 28 Days/Truck. 28 Days/Truck/4 Trucks = 7 Days. Equipment costs from Blue Book.												262,560
00E0940	Car 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	70	00E0940	\$0	3068.1	0	0	3068.1
	Memo: Loader at material source.											\$3,068
00E2010	12 cy End Dump	GEN	U.C. per ea	4.00	ea	280	00E2010	\$0	2201.5	0	0	2201.5
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	70	00E2050	\$0	2195.6	0	0	2195.6

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Material Costs where applicable include Idaho State Sales Tax
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Project Name: **WAG 3**
OU 3-14 RUFFS Alternative 3a: Institutional Controls, Monitoring, Source Removal!
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-3a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012):												
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	70	00E0912	\$0	4670.9	\$0	0	4670.9
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	70	00E0630	\$0	1852.9	\$0	0	1852.9
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	210	CN-ENGR	\$8,272	0	0	\$0	0	2757.3
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GWW)	GEN	U.C. per ea	5.00	ea	350	CN-TRHV	\$13,115	0	0	\$0	0	2622.9
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	140	CN-LABR	\$4,928	0	0	\$0	0	2464.7
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	140	CN-SURV	\$5,207	0	0	\$0	0	2603.3
"8" Gravel Layer-Central Area *	GEN	U.C. per ea	1.00	ea	0		\$0	0	0	\$0	0	0
Memo: Surface area ET cover central area = 177,216 SF (Qty from CMI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY = 3283 CY.												
Pea Gravel	GEN	U.C. per CY	3,283.00	CY	0		\$0	0	0	\$0	0	0
Memo: Pea gravel material cost delivered (local vendor quote). Deliver 6" (3,283 CY) gravel from town to borrow pile, 1/2 mile from job site. 3,280 CY/10 CY/Load = 328 Loads Cycle time/Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, \$0 minute hour) = 24 loads/day/truck. 328 Loads/24 Loads/Day/4 Trucks = 4 Days. Equipment costs from Blue Book.												
00E0940	Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	40	00E0940	\$0	1753.2	\$0	0	1753.2
Memo: Loader at material source.												
00E2010	12 cy End Dump	GEN	U.C. per ea	4.00	ea	160	00E2010	\$0	1258	\$0	0	1258
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	40	00E2050	\$0	1255.2	\$0	0	1255.2
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	40	00E0912	\$0	2634.8	\$0	0	2634.8

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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 R/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2966-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	40	00E0630	\$0	0	\$1,059	0	0
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	40	\$39.39	\$4,727	0	\$0	0	1575.6
CN-TRHV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)	GEN	U.C. per ea	5.00	ea	40	\$37.47	\$7,494	0	\$0	0	1498.8
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	40	\$35.21	\$1,408.4	0	\$0	0	1408.4
CN-SURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	40	\$37.19	\$1,487.6	0	\$0	0	1487.6
3.5' USCS Soil Type M, or CL Central Zone. Surface area ET cover central area = 177.2*16 SF (Qty from CWI Design Engineering). Volume = 177.2*16 * 3.5' = 620.256 CF/27 CY/CY = 22,972 CY. Import 3.5' (22,972 CY) material from Rye Grass Flats (10 miles one way). 22,972 CY/10 CY/Load Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 2,297 Loads/7 Loads/Day/Truck = 328 Days/Truck. 328 Days/Truck/8 Trucks = 41 Days. Equipment costs from Blue Book.												
00E0940	Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	410	00E0940	\$0	0	\$17,970	0	0
	Memo: Loader at material source.											
00E2010	12 cy End Dump	GEN	U.C. per ea	8.00	ea	3,280	00E2010	\$0	0	\$103,156	0	0
00E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	410	00E2050	\$0	0	\$12,866	0	12865.8
00E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	410	00E0912	\$0	0	\$27,007	0	0
00E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	410	00E0630	\$0	0	\$10,853	0	0
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	410	\$39.39	\$48,450	0	\$0	0	16149.9

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Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal!
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>LQM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
CN-TRAV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY-9600GVW)	U.C. per ea	9.00	ea	3,690	CN-TRHV	\$138,264	\$0	\$0	\$0	\$0	\$138,264
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	410	\$35.21	\$14,361	\$0	\$0	\$0	\$0	\$14,361
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	410	\$37.19	\$15247.9	\$0	\$0	\$0	\$0	\$15247.9
	GEN	U.C. per ea			0		\$0					0.01
	"6" Topsoil with Gravel Admin Central Zone"	U.C. per ea	1.00	ea	0		\$0					\$0
	Memo: Surface area ET cover central area = 177,216 SF (6ft from CWI Design Engineering). Volume = 177,216 x 0.5 = 88,608 CF/27 CY/CY = 3282 CY. Import 3/4 of 6' lift (2462 CY) material from Rye Grass Flats (10 miles one way). 1/4 of 6' lift (820 CY) will be from pea gravel from town to borrow pile. For rye grass flats soil, 246 CY/10 CY/Load = 246 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 30 minute hour) = 7 loads/day/truck. 35 Days/Truck/4 Trucks = 9 Days. Equipment costs from Blue Book.											
00E0840	GEN	U.C. per ea	1.00	ea	90	00E0840	\$0	0	\$0	\$0	\$0	\$0
	"USCS Soil Type Ml. or Cl."	U.C. per ea	1.00	ea	90	00E0840	\$0	3944.7	\$0	\$0	\$0	3944.7
	Memo: For rye grass flats soil, 2462 CY/10 CY/Load = 246 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 30 minute hour) = 7 loads/day/truck. 246 Loads/7 Days/Day/Truck = 35 Days/Truck. 35 Days/Truck/4 Trucks = 9 Days. Equipment costs from Blue Book.											
00E2010	GEN	U.C. per ea	4.00	ea	360	00E2010	\$0	2630.5	\$0	\$0	\$0	\$11,322
	12 CY End Dump	U.C. per ea	1.00	ea	90	00E2050	\$0	2624.2	\$0	\$0	\$0	2624.2
00E2050	GEN	U.C. per ea	1.00	ea	90	00E0912	\$0	2,824	\$0	\$0	\$0	\$2,824
00E0912	GEN	U.C. per ea	1.00	ea	90	00E0912	\$0	528.3	\$0	\$0	\$0	528.3
	Cat 14 Grader	U.C. per ea	1.00	ea	90	00E0630	\$0	282.3	\$0	\$0	\$0	282.3
00E0630	GEN	U.C. per ea	1.00	ea	90	00E0630	\$0	2,382	\$0	\$0	\$0	\$2,382
CN-ENGR	OPERATING ENGINEER	U.C. per ea	3.00	ea	90	\$39.39	\$345.1	0	\$0	\$0	\$0	\$345.1
					270	CN-ENGR	\$10,635					\$10,635

Client: **L. Cahn, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

Estimating Services Department

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Material Costs where applicable include Idaho State Sales Tax

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-3a**

DETAIL ITEM REPORT

Client: **L. Cain, 6-3080**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover Central Zone (2012)												
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	U.C. per ea	5.00	ea	90	\$37.47		\$372.3	0	0	0	3372.3
					450	CN-TRHV		\$16,862	\$0	\$0	\$0	\$16,862
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	90	\$35.21		\$3168.9	0	0	0	3168.9
					180	CN-LABR		\$6,338	\$0	\$0	\$0	\$6,338
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	90	\$37.19		\$3347.1	0	0	0	3347.1
					180	CN-SURV		\$6,694	\$0	\$0	\$0	\$6,694
GEN	U.C. per CY				0				0	0	25	0
	820.00 CY				0			\$0				25
3/8" Pea Gravel	820 CY											\$20,590
Memo: 1/4 of 6' lift (820 CY) will be from pea gravel from town, to borrow pile, 1/2 mile from job site. 820 CY/10 CY/Load = \$20,500 CY/Load. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 17 hr night) = 24 loads/truck. 82 Loads/24 Loads/Day/Truck = 4 Days/Truck/4 Trucks = 1 Day. Equipment costs from Blue Book.												
00E0840	GEN Cat 350 4 cy Loader	U.C. per ea	1.00	ea	10	00E0940		0	438.3	0	0	0
	Memo: Loader at material source.							\$438	\$0	\$0	\$0	438
00E2010	GEN 12 cy End Dump	U.C. per ea	4.00	ea	40	00E2010		0	\$1,258	0	0	0
								\$314.5	\$0	\$0	\$0	\$1,258
00E2050	GEN 4000 gal Water Truck	U.C. per ea	1.00	ea	10	00E2050		0	\$313.8	0	0	0
								\$514	\$0	\$0	\$0	\$1,258
00E0912	GEN Cat 14 Grader	U.C. per ea	1.00	ea	10	00E0912		0	\$658.7	0	0	0
								\$659	\$0	\$0	\$0	\$313.8
00E0630	GEN Cat CS-433 Vib Smooth Drum Compactor	U.C. per ea	1.00	ea	10	00E0630		0	\$264.7	0	0	0
								\$265	\$0	\$0	\$0	\$313.8
CN-ENGR	GEN OPERATING ENGINEER	U.C. per ea	3.00	ea	10	\$39.39		\$393.9	0	0	0	393.9
					30	CN-ENGR		\$1,182	\$0	\$0	\$0	\$1,182
CN-TRHV	GEN TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	U.C. per ea	5.00	ea	10	\$37.47		\$374.7	0	0	0	374.7
					50	CN-TRHV		\$1,874	\$0	\$0	\$0	\$1,874
CN-LABR	GEN LABORER	U.C. per ea	2.00	ea	10	\$35.21		\$352.1	0	0	0	352.1
					20	CN-LABR		\$704	\$0	\$0	\$0	\$704

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: WAG³
 OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2946-M-3a

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>	
Tank Farm ET Cover Central Zone [2012]													
CN-SURV	GEN SURVEYOR INSTRUMENT MAN (GROUP 5)	U.C. per ea	2.00	ea	10	\$37.19		371.9	\$0	0	0	0	
					20	CN-SURV		\$744	\$0	\$0	\$0	371.9 \$744	
GEN	Reseeding Central Zone Area	U.C. per ACRES	4.07	ACRES	0		0	0	0	0	0	3000	
Memo:	177,216 SF (per CWI Design Eng) = 4.07 Acres											\$12,210	
Subtotal								\$368,662	\$245,189	\$0	\$1,194,300	\$0	
Sales Tax								\$104,120	\$0	\$0	\$0	\$0	
Overheads			29.03%					\$71,178	\$0	\$346,705	\$0	\$522,003	
Subtotal Estimate												\$2,370,154	
Escalation								\$92,556	\$63,273	\$0	\$0	\$0	
Contingency										\$308,201	\$0	\$464,031	
Total Tank Farm ET Cover Central Zone [2012]			9,560					\$655,318	\$379,541	\$0	\$1,849,206	\$0	\$2,784,185
Tank Farm ET Cover South Perimeter Area [2035]													
Memo:	54,205 SF (per CWI Design Eng) = 1.25 Acres												
GEN	Grading Fill-South Perimeter Area (FY 2035)	U.C. per CY	3,431.00	CY	0		0	\$0	\$0	\$137,240	40	0	
Memo:	Assume fill material is available within 1 mile of job site. Quantity from CWI Design Engineering.											\$137,240	
GEN	*6" Gravel Layer-South Perimeter Area*	U.C. per ea	1.00	ea	0	Volume = 54,204 SF (Q'ty from CWI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY = 1004 CY.	0	0	0	0.01	0	0	
Memo:	Surface area ET south perimeter area = 54,204 SF (Q'ty from CWI Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY = 1004 CY.												
GEN	Pea Gravel	U.C. per CY	1,004.00	CY	0		0	\$0	\$0	\$25,100	0	\$25,100	
Memo:	Pea gravel material cost delivered (local vendor quote). Deliver 6" (1,004 CY) gravel from town to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 Loads/day/truck. 100 Loads/24 Loads/Day/Truck = 4 Days/Truck/4 Trucks = 1 Day. Equipment costs from Blue Book.												
00E0940	Cat 950 4 cy Loader	GEN	1.00	ea	10	00E0940	0	\$438.3	\$0	0	0	438.3	
Memo:	Loader at material source.											\$438	

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2386-M-3a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3040**
Prepared By: **J. Folker, 6-0322**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo: 54,208 SF (per CW Design Engn) = 1.25 Acres												
00E2010 12 cy End Dump	GEN	U.C. per ea	4.00	ea	10 40	00E2010	\$0	\$1,258	\$0	0	0	\$1,258
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10 10	00E2050	\$0	\$114	\$0	0	0	\$114
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10 10	00E0912	\$0	\$659	\$0	0	0	\$659
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10 10	00E0630	\$0	\$265	\$0	0	0	\$265
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10 30	CN-ENGR	\$1,182	\$0	\$0	0	0	\$1,182
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600GVW)	GEN	U.C. per ea	5.00	ea	10 50	CN-TRHV	\$1,874	\$0	\$0	0	0	\$1,874
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	10 20	CN-LABR	\$704	\$0	\$0	0	0	\$704
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10 20	CN-SURV	\$744	\$0	\$0	0	0	\$744
1'-0" Cobble Layer-South Perimeter Area												
Memo: Surface area ET1 cover south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 1.0 = 54,204 CY/27 CY/CY = 2,008 CY.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per CY	1.00	ea	0		\$0	\$0	\$0	\$0	0	\$0
Cobble Stone-South Perimeter Area												
Memo: Cobble stone material cost delivered (local vendor quote). Deliver 2,008 CY cobble from town, to borrow pile, 1/2 mile from job site. 2,008 CY/10 CY/Load = 201 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 201 Loads/24 Loads/Day/Truck = 8 Days/Truck. 8 Days/Truck/4 Trucks = 2 Days. Equipment costs from Blue Book.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	20 20	00E0940	\$0	\$877	\$0	0	0	\$877

Memo: Cobble Layer-South Perimeter Area = 54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 1.0 = 54,204 CY/27 CY/CY = 2,008 CY.

GEN	U.C. per CY	2,008.00	CY	0	\$0	\$0	\$80,320	\$0	\$0	\$0	\$0	\$80,320
Memo: Cobble stone material cost delivered (local vendor quote). Deliver 2,008 CY cobble from town, to borrow pile, 1/2 mile from job site. 2,008 CY/10 CY/Load = 201 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 201 Loads/24 Loads/Day/Truck = 8 Days/Truck. 8 Days/Truck/4 Trucks = 2 Days. Equipment costs from Blue Book.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	20 20	00E0940	\$0	\$877	\$0	0	0	\$877

Project Name: **WAG 3²**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal!
Project Location: **INTEC Tank Farm**
Estimate Number: **2906-M-3a**

DETAIL ITEM REPORT

Memo: **64,205 SF (per C/W Design Engg) = 1.25 Acres**
64,205 SF (per C/W Design Engg) = 1.25 Acres

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2035)												
00E2010 12 cu End Dump	GEN	U.C. per ea	4.00	ea	20	00E2010	\$0	629	0	0	0	\$2,518
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	20	00E2050	\$0	627.6	0	0	0	\$625
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	20	00E0912	\$0	1317.4	0	0	0	\$1,317
00E0630 Cat CS-423 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	20	00E0630	\$0	529.4	0	0	0	\$529
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	20	\$39.38	\$2,363	0	0	0	0	\$2,363
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY<9600GVW)	GEN	U.C. per ea	5.00	ea	100	CN-TRHV	\$3,747	749.4	0	0	0	\$3,747
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	20	\$35.21	\$1,408	704.2	0	0	0	\$1,408
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	20	\$37.19	\$1,488	743.8	0	0	0	\$1,488
6' Gravel Layer-South Perimeter Area												
Memo: Surface area ET south perimeter area = 54,204 SF (Qty from C/W Design Engineering). Volume = 54,204 x 0.5 = 27,102 CF/27 CY/CY.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per CY	1.004	cu CY	0	\$0	\$0	0	25	0	0	\$25,100
Memo: Pea gravel material cost delivered (local vendor quote). Deliver 6' (1,004 CY) gravel from town, to borrow pile, 1/2 mile from job site. 1,004 CY/10 CY/Load = 100 Loads. Cycle time (Load, haul, dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 100 Loads/24 Loads/Day/Truck. 4 Days/Truck. Equipment costs from Blue Book.												
Memo: Loader at material source.												

DETAIL ITEM REPORT

Project Name: Project Location: Estimate Number:

DETAILS
Site Removal

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty.</u>	<u>UOM</u>	<u>Hrs.</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo:	\$4,205 SF (per CWF Design Engr) = 1.25 Acres											
000E2010	12 cy End Dump	GEN	U.C. per ea	4.00	ea	10 40	00E2010	\$0	0	0	0	\$1,258
000E2050	4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10 10	00E2050	\$0	0	0	0	\$314
000E0912	Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10 10	00E0912	\$0	0	0	0	\$659
000E0630	Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	10 10	00E0630	\$0	264.7 \$265	0	0	\$265
CN-ENGR	OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	10 30	\$39.39 CN-ENGR	\$1,182	0	0	0	\$1,182
CN-TRHV	TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY~9600GWW)	GEN	U.C. per ea	5.00	ea	10 50	\$37.47 CN-TRHV	\$1,874	0	0	0	\$1,874
CN-LABR	LABORER	GEN	U.C. per ea	2.00	ea	10 20	\$35.21 CN-LABR	\$704	0	0	0	\$704
CN-SURV	SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	10 20	\$37.19 CN-SURV	\$744	0	0	0	\$744
3.5 USCS Soil Type Ml or CL South Perimeter Area												
Memo:	Surface area ET cover south perimeter area = 54,204 SF (QTY from CWI Design Engineering). Volume = 54,204 x 3.5 = 189,714 CF/CY = 7,026 CY. Import 3.5 (7,026 CY) material from Rye Grass Flats (10 miles one way). 7,026 CY/10 CY/Load = 703 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 703 Loads/7 Loads/Day/Truck = 100 Days/Truck. 100 Days/Truck/8 Trucks = 13 Days. Equipment costs from Blue Book.											
000E0940	Cat 950 4cy Loader	GEN	U.C. per ea	1.00	ea	130 130	00E0940	\$0	5697.9 \$5,698	0	0	\$5,698
000E2010	12 cy End Dump	GEN	U.C. per ea	8.00	ea	130 130	00E2010	\$0	4087.8 \$32,705	0	0	\$32,705

*Area**
Memo: Surface area ET cover south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = 54,204 x 3.5 = 189,714 CF/CY = 7,026 CY. Import 3.5' [7,026 CY] material from Rye Grass Flats [10 miles one way]. 7,026 CY/10 CY/Load = 703 Loads. Cycle time (load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 703 Loads/7 Loads/Day/Truck = 100

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax Page No. 26

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Link Farm ET Cover South Perimeter Area (2016)</u>												
Memo:	54,205 SF (per CWI Design Engt) = 1.25 Acres											
00E2050	GEN	U.C. per ea	1.00	ea	130	00E2050	\$0	\$4,079	0	0	0	4079.4
4000 gal Water Truck									\$0	\$0	\$0	\$4,079
00E0912	GEN	U.C. per ea	1.00	ea	130	00E0912	\$0	\$8,563	0	0	0	8563.1
Car 14 Grader									\$0	\$0	\$0	\$8,563
00E0630	GEN	U.C. per ea	1.00	ea	130	00E0630	\$0	\$3,441	0	0	0	3441.1
Car CS-433 Vib Smooth Drum Compactor									\$0	\$0	\$0	\$3,441
CN-ENGR	GEN	U.C. per ea	3.00	ea	390	CN-ENGR	\$15,362	0	0	0	0	5120.7
OPERATING ENGINEER									\$0	\$0	\$0	\$15,362
CN-TRHV	GEN	U.C. per ea	9.00	ea	1,170	CN-TRHV	\$43,840	0	0	0	0	4671.1
TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9600 GVW)									\$0	\$0	\$0	\$43,840
CN-LABR	GEN	U.C. per ea	2.00	ea	280	CN-LABR	\$9,155	0	0	0	0	4577.3
LABORER									\$0	\$0	\$0	\$9,155
CN-SURV	GEN	U.C. per ea	2.00	ea	280	CN-SURV	\$9,669	0	0	0	0	4634.7
SURVEYOR INSTRUMENT MAN (GROUP 5)									\$0	\$0	\$0	\$9,669
"6" Topsoil with Gravel Admix South Perimeter	GEN	U.C. per ea	1.00	ea	0	\$0	\$0	0	0	0	0	0.01
Area:												\$0
"USCS Soil Type ML or CL"	GEN	U.C. per ea	1.00	ea	0	\$0	\$0	0	0	0	0	0.01
Memo: Surface area ET cover south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = $54,204 \times 0.5 = 27,102 \text{ CF}/27 \text{ CY} = 1,004 \text{ CY}$. Import 3/4 of 6" lift (750 CY/10 CY/Load = 75 Loads. Cycle time/Load = 75 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 11 Days/Truck. 11 Days/7 Loads/7 Trucks = 3 Days. Equipment costs from Blue Book.												
00E0940	GEN	U.C. per ea	1.00	ea	30	00E0940	\$0	\$1,315	0	0	0	1314.9
Car 950 4 cy Loader												\$1,315
Memo: Loader at material source.												
00E2010	GEN	U.C. per ea	4.00	ea	120	00E2010	\$0	\$3,774	0	0	0	943.5
12 cy End Dump												\$3,774

Memo: For re grass flats soil 750 CY/10 CY/Load = 75 Loads. Cycle time (Load, haul, dump, return) = 50 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 11 Days/Truck. 11 Days/7 Loads/7 Trucks = 3 Days. Equipment costs from Blue Book.

Memo: Surface area ET cover south perimeter area = 54,204 SF (Qty from CWI Design Engineering). Volume = $54,204 \times 0.5 = 27,102 \text{ CF}/27 \text{ CY} = 1,004 \text{ CY}$. Import 3/4 of 6" lift (750 CY/10 CY/Load = 75 Loads. Cycle time/Load = 75 minutes. INEEL Factor (7 hr day, 50 minute hour) = 7 loads/day/truck. 11 Days/Truck. 11 Days/7 Loads/7 Trucks = 3 Days. Equipment costs from Blue Book.

Material Costs where applicable include Idaho State Sales Tax
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Project Name: WAG 3
 OU J-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
 Project Location: INTEC Tank Farm
 Estimate Number: 2986-M-3a

DETAIL ITEM REPORT

Memo: OU J-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal

Client: L. Cahn, 6-3080
 Prepared By: J. Folker, 6-0322
 Estimate Type: Project Support

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>IOM</u>	<u>Hrs.</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2035)												
Memo: 64,205 SF (per CW Design Engg) = 1.25 Acres												
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	30	00E2050	\$0	941.4	\$0	0	0	941.4
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	30	00E0912	\$0	1976.1	\$0	0	0	1976.1
00E0630 Cat CS-433 Vib Smooth Drum Compactor	GEN	U.C. per ea	1.00	ea	30	00E0630	\$0	794.1	\$0	0	0	794.1
CN-ENGR OPERATING ENGINEER	GEN	U.C. per ea	3.00	ea	30	\$39.39	\$181.7	0	\$0	\$0	0	1181.7
CN-TRHV TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY >9600 GVW)	GEN	U.C. per ea	5.00	ea	150	\$37.47	\$124.1	0	\$0	\$0	0	1124.1
CN-LABR LABORER	GEN	U.C. per ea	2.00	ea	30	\$35.21	\$105.63	0	\$0	\$0	\$0	5,621
CN-SURV SURVEYOR INSTRUMENT MAN (GROUP 5)	GEN	U.C. per ea	2.00	ea	30	\$37.19	\$115.7	0	\$0	\$0	0	115.7
	GEN	U.C. per CY	250.00	CY	0	0	0	0	\$0	\$6,250	0	\$6,250
3/8" Pea Gravel Memo: 1/4 or 6" lift (250 CY) will be from pea gravel from town to borrow pile @ \$25/CY. Deliver 250 CY gravel from town, to borrow pile, 1/2 mile from job site. 25 Loads/24 Loads/Day/Truck = 1 Day/Truck. 25 Loads/24 Loads/Day/Truck = 1 Day. Equipment costs from Blue Book. dump, return) = 15 minutes. INEEL Factor (7 hr day, 50 minute hour) = 24 loads/day/truck. 25 Loads/24 Loads/Day/Truck = 1 Day. Equipment costs from Blue Book.												
00E0940 Cat 950 4 cy Loader	GEN	U.C. per ea	1.00	ea	10	00E0940	\$0	436.3	\$0	0	0	436.3
Memo: Loader at material source.												
00E2010 12 cy End Dump	GEN	U.C. per ea	1.00	ea	10	00E2010	\$0	314.5	\$0	0	0	314.5
00E2050 4000 gal Water Truck	GEN	U.C. per ea	1.00	ea	10	00E2050	\$0	313.8	\$0	0	0	313.8
00E0912 Cat 14 Grader	GEN	U.C. per ea	1.00	ea	10	00E0912	\$0	658.7	\$0	0	0	658.7

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
 Page No. 28

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **29864-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Tank Farm ET Cover South Perimeter Area (2036)												
Memo:	54,205 SF (per CWI Design Engg) = 1.25 Acres											
00E0630	GEN	U.C. per ea	1.00	ea	10	00E0630	30	0	264.7	0	0	264.7
Cat CS-433 Vib Smooth Drum Compactor									\$265	\$0	\$0	\$265
CN-ENGR	GEN	U.C. per ee	3.00	ea	10	\$39.39	393.9	0	0	0	0	393.9
OPERATING ENGINEER									\$1,182			\$1,182
CN-TRHV	GEN	U.C. per ee	2.00	ea	10	\$37.47	374.7	0	0	0	0	374.7
TRUCK DRIVERS, HEAVY (GROUP 4) (LOWBOY <9500GWW)									\$749			\$749
CN-LABR	GEN	U.C. per ee	2.00	ea	10	\$35.21	352.1	0	0	0	0	352.1
LABORER									\$704	\$0	\$0	\$704
CN-SURV	GEN	U.C. per ee	2.00	ea	10	\$37.19	371.9	0	0	0	0	371.9
SURVEYOR INSTRUMENT MAN (GROUP 5)									\$744			\$744
Reseeding South Perimeter Area	GEN	U.C. per ACRES	1.25	ACRES	0	0	0	0	3,000	0	0	3,000
Memo: 54,204 SF (per CWI Design Engg) = 1.25 Acres									\$3,750	\$0	\$0	\$3,750
Subtotal						\$112,928	\$77,014	\$0	\$277,760	\$0	\$0	\$467,702
Sales Tax						\$32,783	\$22,357	\$0	\$80,634	\$0	\$0	\$135,774
Overheads												
Subtotal Estimate												\$603,476
Escalation												
Contingency												
Total Tank Farm ET Cover South Perimeter Area (2036)			3,010			\$174,352	\$119,245	\$0	\$430,073	\$0	\$0	\$724,170

Project Management (Capital)

PM cost estimated at 5% of construction	CWI	U.C. per \$	0.05	0	0	0	0	0.05
				\$1,604,215	\$0	\$0	\$0	\$1,604,215

Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2906-44-3a**

Client: **L. Cahn, 6-3040**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Project Management (Capital)												
Subtotal					\$1,604.215			\$0	\$0	\$0	\$0	\$1,604.215
Sales Tax					\$0			\$0	\$0	\$0	\$0	\$0
Overshads			0.00%		\$0			\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$1,604.215
Escalation												
Contingency												
-- Total Project Management (Capital)			0		\$1,604.215			\$0	\$0	\$0	\$0	\$1,604.215

Remedial Design/Remedial Action Work Plan

CWI	U.C. per \$\$	32,084.294.00	\$\$	0	\$2,566.744	0.06		0	0	0	0	0
Memo: Estimate assumes equipment design will be done by equipment manufacturers, for the track-hoe.												
Subtotal					\$2,566.744			\$0	\$0	\$0	\$0	\$2,566.744
Sales Tax					\$0			\$0	\$0	\$0	\$0	\$0
Overshads			0.00%		\$0			\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$2,566.744
Escalation												
Contingency												
-- Total Remedial Design/Remedial Action Work Plan			0		\$2,566.744			\$0	\$0	\$0	\$0	\$2,566.744

Construction Management (Capital)

CWI	U.C. per \$\$	32,084.294.00	\$\$	0	\$1,925.058	0.06		0	0	0	0	0
CM cost estimated at 6% of construction												
-- Total Construction Management (Capital)												\$1,925.058

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal

Project Location: **INTEC Tank Farm**
Estimate Number: **2986-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor:</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Construction Management (Capital)												
Subtotal					\$1,925,058	\$0	\$0	\$0	\$0	\$0	\$0	\$1,925,058
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,925,058
Escalation					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
-- Total Construction Management (Capital)			0		\$1,925,058	\$0	\$0	\$0	\$0	\$0	\$0	\$1,925,058

Extraction, Containment, or Treatment Systems

Memo: **Costs for tank farm drainage maintenance, lift station pump tests, drainage inspections, annual O&M data collection, reports, and transmittals or reports to agencies. For basis, see estimate file # 2986-K. (Total cost per year is \$526,000/7 yrs (FY06-12)) = \$75,000 annual cost.**

Surface Water Controls	CWI	U.C. per LS	1.00	LS	0	\$0	0	0	0	\$0	\$75,000	\$75,000
Subtotal						\$0	\$0	\$0	\$0	\$0	\$75,000	\$75,000
Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads			0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate						\$0	\$0	\$0	\$0	\$0	\$0	\$75,000
Escalation						\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency						\$0	\$0	\$0	\$0	\$0	\$0	\$0
-- Total Extraction, Containment, or Treatment Systems			0		\$0	\$86,250						

Project Management (O&M) (Annual)

Memo: **Responsible for managing baseline schedule and budget, LCB mode, changes and updates, reporting, resource locking, etc. 10 hrs/month. Based on current/proposed crew makeup and determined duration period.**

E28	PROJECT MANAGEMENT	CWI	U.C. per hrs	10.00	hrs	120	\$74.02	\$866.24	0	0	0	\$866.24
									\$0	\$0	\$0	\$866.24

Material Costs where applicable include Idaho State Sales Tax
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Estimating Services Department

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2806-44-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

Code Description **Contractor** **Qty** **UOM** **Hrs** **Resource** **Labor** **Equipment** **Material** **Subcontractor** **Other** **TOTAL**

Memo: *Responsible for managing baseline schedule and budget, LCB mode, changes and updates, reporting, resource loading, etc. 10 hrs/month. Based on current/proposed crew makeup and determined duration periods.*

Subtotal				\$8,882	\$0	\$0	\$0	\$0	\$0	\$0	\$8,882
Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Overheads				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate											\$8,882
Escalation				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency				\$1,332	\$0	\$0	\$0	\$0	\$0	\$0	\$1,332
-Total Project Management (S&M) (Annual)											\$10,216

Project Management (S&M) (Annual)

Memo: *Responsible for managing baseline schedule and budget, LCB mode, changes and updates, reporting, resource loading, etc. Based on current/proposed crew makeup and determined duration periods.*

E28	PROJECT MANAGEMENT	CWI	U.C. per months	12.00	months	10	\$74.02	\$740.2	0	0	0	740.2
Subtotal								\$8,882	\$0	\$0	\$0	\$8,882
Sales Tax								\$0	\$0	\$0	\$0	\$0
Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$8,882
Escalation								\$0	\$0	\$0	\$0	\$0
Contingency								\$1,332	\$0	\$0	\$0	\$1,332
-Total Project Management (S&M) (Annual)												\$10,216

Monitoring, Sampling, Testing, and Analysis (S&M) (2013-15-20-25...9B)

Memo: *Includes remediation surveys and environmental monitoring for CPP-96. For groundwater monitoring, group 5, estimate file # 6532-DWP2-11B and WBS P.A.C1.D4.01, Routine GW monitoring LCB estimates are used as basis. AWMR 2013, 2015 then every 5 years till 2096. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cahn email to J. Folker dated 08/12/2008.*

Project Name: **WAG 3**
OU 3-14 RUFFS Alternative 3c: Institutional Controls, Monitoring, Source Removal
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2966-M-3a**

DETAIL ITEM REPORT

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>U.C. per ea</u>	<u>Amt</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00 ea		40	\$47.41	0	\$0	\$0	\$0	0	\$0
	"Soil Monitoring"					40	X12		\$1,896.4	\$0	\$0	0	\$0
	Memo: A No Longer Contained in Determination will be approved for all INTEC groundwater and perched water.								\$1,896			0.01	\$0
U-60	RADIOLOGICAL CONTROL TECH	CWI	U.C. per ea	1.00 ea		40	\$40.07	0	\$0	\$0	\$0	0	\$0
	"Groundwater Monitoring"					40	U-60		\$1,603			1602.6	\$1,603
	Memo: Based on Group 5 DWP estimate file # 8530-DWP2-11B; escalated to 2006.												
CWI	Annual Well Monitoring, Including Report	CWI	U.C. per ea	1.00 ea		0							
	Memo: Based on Group 5 actuals. See Routine GW monitoring LCB, ID ERM4100045.												
CWI	Prepare TOS, Work Planning & Mobilization	CWI	U.C. per LS	NM60		40	\$53.67	0					
	Memo: Based on Group 5 actuals. See Routine GW monitoring LCB, ID ERM4100045.					40	S15						
	"Collect samples"												
S15	ANALYTICAL CHEMISTRY	CWI	U.C. per ea	1.00 ea		0							
	Memo: Based on Group 5 actuals. See Routine GW monitoring LCB, ID ERM4100046.												
T10	LABORATORY TECH	CWI	U.C. per ea	1.00 ea		8	\$37.03	0					
						8	T10						
T15	ENVIRONFIELD TECH	CWI	U.C. per ea	1.00 ea		200	\$29.84	0					
						200	T15						
U16	FITTER	CWI	U.C. per ea	1.00 ea		3	\$36.61	0					
						3	U16						
U76	CONSTRUCTION IRON WORKER (FORCE ACCT)	CWI	U.C. per ea	1.00 ea		30	\$33.36	0					
						30	U76						

Project Name: _____
Project Location: _____
Estimate Number: _____

DETAIL ITEM REPORT

Project Name: WAG 3
CII 3-14 R/F/S Alternative 3a: Institutional Controls. Monitoring. Source Removal

Project Location: INTEC Tank Farm
Estimate Number: 2006M-30

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: WO Project Location: W Estimate Number: 2

<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Monitoring, Sampling, Testing, and Analysis (SAM) [2013,16,20,25,...,36]											
Memo: Includes radiation surveys and environmental monitoring for CPP-06. For groundwater monitoring, group 5, estimate file # 8590-DWPR-11B and WBS P.4.C1:04.061. Routine GW monitoring LCB estimates are used as base. AWMR 2013, 2015 then every 5 years till 2035. The long term groundwater monitoring requirements will be the same as Group 5 as specified in the long term monitoring plan in terms of number of wells, frequency, number of constituents, etc. See L. S. Cain email to J. Folter dated 03/20/2006.											
S116	CHEMICAL SCIENCES		CMI	U.C. per ea	1.00	ea	34	\$65.07	2212.39	0	0
					34	\$16		\$2,212	\$0	\$0	\$0
Subtotal					\$52,194		\$0	\$3,261	\$72,274	\$0	\$127,730
Sales Tax					\$0		\$0	\$0	\$0	\$0	\$0
Oversheads					\$0		\$0	\$0	\$0	\$0	\$0
Subtotal Estimate											\$127,730
Escalation											
Contingency											
Total Monitoring, Sampling, Testing, and Analysis (SAM) [2013,16,20,25,...,36]											
		677			\$60,023		\$0	\$3,761	\$83,115	\$0	\$146,889

Site Information Database (CFLUP) (Annual)

Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the IHL CELUP; update changes or terminations referred to by the agencies. Incorporation of ORB comments. See WBS F-4.C.1.03.02, Institutional Controls, estimate by R. Fitch. Once per year

DETAIL ITEM REPORT

Project Name: **WAG**
OU-3
Project Location: **INTE**
Estimate Number: **2996**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>City</u>	<u>UCM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Site Information Database (CFIUP) (Annual)												
Memo: Institutional controls will remain in effect as long as hazards remain which make the site unsuitable for unrestricted residential use. Maintain the site listings and updates in the IHL. CFIUP; update changes or terminations agreed to by the agencies. Incorporation of OMB comments. See WBS P.4.C1.03.02, Institutional Controls, estimate by R. Fitch. Once per year through 2095. 1 year costs.												
S05	GEOLOGY	CWI	U.C. per ea	1.00	ea	8	\$80.57	484.56	\$0	0	0	484.56
Subtotal				6	\$0.5		\$4.85					\$4.85
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$4.28	\$0	\$18	\$0	\$0	\$4.46
Total	Site Information Database (CFIUP) (Annual)			68			\$3,283		\$135		\$0	\$0
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												
 												

Annual Institutional Control Inspection

Memo: Annual Inspection [assessment]. See WES No. P.A.C1.03.02, ID # ERM3200010.

SOS	GEOLOGY	CIM	U.C. per ea	1.00	ea	32	\$60.57	1936.24	0	0	0	1938.24
Memo:	For assessment						\$05	\$05	\$0	\$0	\$0	\$1,938
Subtotal												\$2,318
Sales Tax												\$0
Overheads												\$0
Subtotal Estimate												\$2,318
Escalation												\$0
Contingency												\$348
Total Annual Institutional Control Inspection												
40							\$2,665	\$0	\$0	\$0	\$0	\$2,665

DETAIL ITEM REPORT

Project Name: **WAG 3²**
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number:**2906-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contactor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Remedy Failure or Replacement (Annual)												
<i>Memo: Warning signs and physical barriers replacement. (Annual costs) See Institutional Controls WBS No. P.4.C1.03.02.ID # ERMS200100, "Maintain Institutional Controls" for basis of estimate.</i>												
NMB0 OTHER - SERVICES	CWI		U.C. per Lot	NM80	1.00	Lot	\$0	\$0	\$0	\$0	\$0	800
Subtotal							\$2,755	\$0	\$0	\$800	\$0	\$3,555
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$3,555
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$0	\$0	\$533
-- Total Remedy Failure or Replacement (Annual)							\$0	\$0	\$0	\$800	\$0	\$4,088

Infiltration Barrier Maintenance

Annual Maintenance of Barrier @ 3% of Construction Costs	U.C. per \$ 3,544,897.06	\$ 0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$106,347
<i>Memo: Total replacement of barrier in approximately 30 years.</i>												
Subtotal							\$0	\$0	\$0	\$106,347	\$0	\$106,347
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$106,347
Escalation							\$0	\$0	\$0	\$0	\$0	\$0
Contingency							\$0	\$0	\$0	\$15,952	\$0	\$15,952
-- Total Infiltration Barrier Maintenance							0	\$0	\$0	\$122,299	\$0	\$122,299

Five Year Review

Memo: Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013,.....

Assemble Data	CWI	U.C. per LS	1.00	LS	0	\$0	\$0	\$0	\$0	\$0	\$0	0.01
04/22/2006	18:30:57											

Material Costs where applicable include Idaho State Sales Tax
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DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2006-44-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Cty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Review*												
Memo: Establish guidelines, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning in 2013.....												
Z09	SUPERVISOR, SCIENCE FUNC	CWI	U.C. per ea	1.00	ea	84	\$72.73	6109.32	0	0	0	\$6,109
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	1.00	LS	0	\$0	0	\$2,398	0	0	\$2,398
Prepare Draft												
NRPF	ELECTRONIC PUBLICATIONS	CWI	U.C. per hrs	NRPF	hrs	0	\$0	0	\$36.17	0	0	\$36.17
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	NRPG	hrs	0	\$0	0	\$58.69	0	0	\$58.69
T08	ILLUSTRATOR/ARTIST	CWI	U.C. per ea	28.00	ea	0	\$0	\$1,643	\$0	\$0	\$0	\$1,643
X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	4	\$36.51	146.04	0	0	0	\$146
Z09	SUPERVISOR, SCIENCE FUNC	CWI	U.C. per ea	1.00	ea	73	\$72.73	5309.29	0	0	0	\$5,309
NM60	OTHER-DIRECT PURCHASES	CWI	U.C. per LS	NM60	LS	0	\$0	0	\$8747	0	0	\$8,747
NM60	OTHER - SERVICES	CWI	U.C. per LS	NM80	LS	0	\$0	0	\$155	0	0	\$155
Establish Team												
Z09	SUPERVISOR, SCIENCE FUNC	CWI	U.C. per ea	1.00	ea	54	\$72.73	3927.42	0	0	0	\$3,927

DETAIL ITEM REPORT

Project Name: **WAG 3**
OU 3-4 RUFS Alternative 3a: Institutional Controls, Monitoring, Source Removal
Project Location: **INTEC Tank Farm**
Estimate Number: **2966-M-3a**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Five Year Review												
Memo:	<i>Establish guideline, review remedy, write report, review report, publish report. Based on FY 2004 OU 1-10 LTS and Five Year Review actual costs. Beginning In 2013.....</i>											
NM60	CWI OTHER-DIRECT PURCHASES		1.00	LS	NM60	0	0	\$0	\$0	\$1,527	0	\$0
Subtotal								\$30,426	\$0	\$14,496	\$155	\$0
Sales Tax								\$0	\$0	\$0	\$0	\$45,077
Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$45,077
Escalation								\$4,564	\$0	\$2,174	\$23	\$0
Contingency												\$6,762
...Total Five Year Reviews								\$30	\$0	\$16,871	\$178	\$0
												\$61,839

Update Institutional Controls Plan (Annual)

Memo: *IC annual report-ORB review, incorporate agency comments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WBS P.A.C1.03.02 Institutional Controls Estimate. ID # ERW4200045. 1 year costs. Please note that RA report is N/A.*

X12	ENVIRONMENTAL RESTORATION	CWI	U.C. per ea	1.00	ea	260	\$47.41	260 X12	\$12,327	0	0	\$0	\$0
NRPG	WRITER/EDITOR	CWI	U.C. per hrs	60.00	hrs	0	0	\$0	\$0	\$3,621	0	\$0	\$12,327
NRPR	RECORDS MANAGEMENT	CWI	U.C. per hrs	18.00	hrs	0	0	\$0	\$0	\$691	0	0	\$3,521
S05	GEOLOGY	CWI	U.C. per ea	1.00	ea	14	\$60.57	14 S05	\$848	0	0	\$0	\$848

DETAIL ITEM REPORT

Project Name: **WAG 3
OU 3-14 RI/FS Alternative 3a: Institutional Controls, Monitoring, Source Removal**
 Project Location: **INTEC Tank Farm**
 Estimate Number: **2986-M-3a**

Client: **L. Cahn, 6-3080**
 Prepared By: **J. Folker, 6-0322**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>IOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>Update Institutional Controls Plan (Annual)</u>												
<i>Memo: IC annual report-ORB review, incorporate agency comments, revise IC plan, prep, graphic support, tech edit, doc control, revise IC plan-ORB review. Ref WBS P.4.C1.03.02 Institutions!</i>												
X12	CWI	U.C. per ea	1.00	ea	22	\$47.41		1043.02	\$0	\$0	\$0	\$0
	ENVIRONMENTAL RESTORATION				22	X12		\$1,043				
	Memo: Incorporate ORB, agency comments.											
Subtotal							\$14,218	\$0	\$4,212	\$0	\$0	\$18,430
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$18,430
Escalation							\$0	\$0	\$0	\$0		
Contingency							\$2,133	\$0	\$632	\$0	\$0	\$2,764
Total Update Institutional Controls Plan (Annual)							\$16,360	\$0	\$4,844	\$0	\$0	\$21,194

Subtotal OU 3-14 FS ALTERNATIVE 3a: INST CTRLS, MONITORING, SOURCE REMOVAL & CONTAINMENT	\$14,280,319	\$688,589	\$10,971,012	\$10,047,689	\$1,251,407	\$37,239,027
Sales Tax	\$0	\$0	\$0	\$0	\$0	\$0
Overheads	\$215,748	\$147,532	\$0	\$986,079	\$0	\$1,349,359
Subtotal Estimate						
Escalation						
Contingency						
Total OU 3-14 FS ALTERNATIVE 3a: INST CTRLS, MONITORING, SOURCE REMOVAL & CONTAINMENT	210,141	\$20,282,339	\$1,225,330	\$19,186,019	\$16,838,334	\$1,676,172